

Access	Locus	Gene
AB023957	170773	AB023957
AB030906	29871	Scmh1
AB035322	108897	
AB036708	170828	Vgll1
AB039178		
AB041576	58242	Nudt11
AB041610	97484	Cog8
AB042402	14695	Gnb3
AB045323	52357	D8ErtD594e
AB047323		
AB047820	104416	Bap1
AB047921	67210	
AB048834	64435	Fcamr
AB052945	109904	Mcf2
AB055154	108138	Xrcc4
AB055635	26931	Ppp2r5c
AB056100	66902	Mtap
AB071988	26914	H2afy
AC079832	286947	Adh6b
AF030001		a lot
AF035526	20534	Slc4a1ap
AF060088	26440	Psma1
AF061933	50779	Rgs6
AF061934	50782	Rgs11
AF062567	20687	Sp3
AF071173	15204	Herc2
AF072758	26568	Slc27a3
AF078112	12328	Caml ?
AF083876	13731	Emp2
AF090738	16368	Irs2
AF092877	19823	Rnf7
AF100956		a lot
AF104414	16798	Lats1
AF105217	57813	Tk2
AF106621	21855	Timm17b
AF121976	57250	Ors19
AF127245	20591	Smcx
AF129888	20918	Sui1-rs1
AF133300	259102	Olfr630
AF150755	11426	Macf1
AF155583	18089	Nkx2-3
AF158744	67310	Prllpc2
AF162224	30924	Angptl3
AF162781	16332	Inpp1
AF177211	140795	Gpr105
AF190665	56873	Lmbr1
AF193606	20658	Son
AF213381	27406	Abcf3
AF217484	57444	Isg20
AF220205	65116	Prrg2
AF220355	56747	Al843918
AF223953	54208	Arl6ip1
AF228925	72088	Ush1c
AF232828	18134	Nova1
AF237628	93677	Lmod2

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AF237917	109225
AF246218	192192 Shkbp1
AF254416	64450 Gpr85
AF259674	107272 Psat1
AF267660	18604 Pdk2
AF276974	192201
AF276975	192200 Swam2
AF279458	19386 Ranbp2
AF281870	64009 Syne1
AF285577	107815 Scml2
AF285590	73679 Tex19
AF290542	192198 Lrrc4
AF292939	170753 Gig1
AF293079	18360 Olfr6
AF297860	104776 Aldh6a1
AF317552	108062 Cstf2
AF320126	14816 Grm1
AF320615	
AF326960	21380 Tbx1
AF327857	232288
AF332051	104112 Acly
AF332067	75425
AF334612	170761 Pdzk2
AF343752	77053 Unc84a
AF346413	75526 Spinlw1
AF369902	68291 Mto1
AF375046	93762 Smarca5
AF407579	140859 Nek8
AF408435	233406 Prc1
AF411608	76273 Ndfip2
AF411834	20620 Snk
AJ006215	12764 Cmas
AJ131821	11938 Atp2a2
AJ250690	
AJ276505	79202 Tnfrsf22 ?
AJ278733	17884 Myh4
AJ288061	76707 Clasp1
AK002252	68323
AK002276	71668
AK002297	71667
AK002360	64697 Keg1
AK002407	110826 Etfb
AK002416	68350
AK002441	66039 D14Erttd449e
AK002458	68339
AK002465	71675
AK002481	74090
AK002490	20195 S100a11
AK002569	73242
AK002574	68348
AK002637	66689 Btbd5
AK002667	67899
AK002696	28126 D13Wsu177e
AK002704	68365 Rab14
AK002744	68375 Ndufa8
AK002767	76509

AK002769	71683 Gypc
AK002772	66425
AK002842	68386
AK003123	68433
AK003132	75406 Ndufs7
AK003154	68420
AK003179	66101 D4Wsu43e
AK003201	68472
AK003223	68563 Dpm3
AK003232	109857 Cbr3
AK003256	74320
AK003278	52466 D11ErtD18e
AK003282	66496
AK003287	66264
AK003337	68490
AK003388	76291
AK003400	68566 Calcyon
AK003413	68001
AK003420	68567 Cgref1
AK003511	73724 Mcee
AK003524	71784
AK003542	73728
AK003549	68499 Mrpl53
AK003556	66966 Trit1
AK003584	81018 Zfp313
AK003586	231712
AK003605	74770
AK003609	76308
AK003611	67070
AK003623	74772
AK003642	68618
AK003651	14000 Etohi2
AK003653	68644 Dorz1
AK003656	74775
AK003661	68520
AK003676	68581
AK003735	52840 D2Bwg0891e
AK003794	97541 Qars
AK003808	224250
AK003818	66248 Alg5
AK003819	74777
AK003826	68530
AK003850	66151
AK003863	26901 Deb1
AK003866	28295 D10Jhu81e
AK003880	68647
AK003996	68668
AK004007	67855
AK004009	54151 Cyhr1
AK004012	68708
AK004139	68735
AK004323	66201
AK004341	68845
AK004342	66478
AK004431	66090
AK004506	68942

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AK004563	
AK004586	66868
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AK004627	74119
AK004632	74105 Gga2
AK004650	67451
AK004655	74107
AK004657	74111
AK004664	73830
AK004679	73340 Nptxr
AK004703	71733 Susd2
AK004714	74133
AK004723	74144 Robo4
AK004757	71728
AK004778	74122
AK004803	66875
AK004813	71729 Rgs12
AK004913	74158
AK004928	56275 Rbm14
AK004939	71753 Tmprss6
AK004943	66627
AK004975	71770 Ap2b1
AK005015	246277 Csad
AK005033	52432 Ppp2r2d
AK005035	71775
AK005044	74157
AK005048	223776
AK005056	66897
AK005063	110351 Rap1ga1
AK005069	71767
AK005095	69757 Leng1
AK005099	68970
AK005132	72003 Synpr
AK005138	101867
AK005139	68262 Agpat4
AK005159	72017
AK005160	72014
AK005164	76566
AK005166	76500
AK005167	76686
AK005205	67129
AK005251	68975
AK005267	68953
AK005311	66871 Cpne8
AK005345	69029
AK005386	72008
AK005431	67009
AK005479	52076 D4Ertd89e
AK005519	67701
AK005536	67883 Uxs1
AK005558	76509
AK005562	72205
AK005588	69317
AK005619	72215
AK005661	69082

AK005710	67283 Slc25a19
AK005730	69318
AK005734	75470
AK005740	74215
AK005756	75454
AK005842	71840
AK005852	71838 Phf7
AK005862	74221
AK005864	75645
AK005887	69354 Slc38a4
AK005888	69324
AK005944	76920 Arrdc5
AK005989	71853 Txndc7
AK006009	75553
AK006014	69428
AK006023	75540 Fpgt
AK006079	76405
AK006107	74229
AK006141	75656
AK006145	75642
AK006173	75629
AK006185	70373
AK006222	72251
AK006243	66091 Ndufa3
AK006263	54613 Slat10
AK006273	69441
AK006283	69435
AK006427	69440
AK006467	75568
AK006472	74239
AK006487	75623
AK006490	66938
AK006504	76380
AK006521	99349
AK006525	70375
AK006533	69519 Rwdd2
AK006539	27660
AK006617	73284 Ddit4l
AK006739	22217 Usp12
AK006800	74270 Usp20
AK006807	74271
AK006837	73447 Wdr13
AK006889	73410
AK006938	73493
AK006959	74279
AK006993	73486
AK007077	73572
AK007097	14051 Eya4
AK007130	73582
AK007327	66144 Atp6v1f
AK007339	99730 Taf13
AK007351	69038
AK007368	69062
AK007389	107686 Snrpd2
AK007415	69046 Hbld2
AK007452	69082

AK007485	69053
AK007494	69064
AK007519	69090 Ascc1
AK007546	110052 Dek
AK007552	56036 Ccnl2
AK007598	69162
AK007653	52443 D4ErtD786e
AK007678	69185
AK007703	27410 Abca3
AK007777	83490 Pik3ap1
AK007822	107747 Fthfd
AK007831	68115
AK007857	70061
AK007913	69833
AK007933	72282
AK007941	67509
AK007993	67490
AK007994	72042 Cotl1
AK007999	69815
AK008008	69824
AK008045	76952 Nt5c2
AK008071	76769
AK008080	76526
AK008083	72041
AK008111	75599
AK008125	228880
AK008151	70114
AK008163	76523
AK008201	69875 Ndufa11
AK008333	70257
AK008338	69894
AK008415	67495
AK008493	72098
AK008537	67035
AK008574	67939
AK008703	75669 Pik3r4
AK008724	70123
AK008734	72349 Dusp3
AK008736	70153
AK008749	66132
AK008753	70387
AK008761	74257 Fbxo23
AK008791	74245
AK008800	70082
AK008803	72281 Sh2d4a
AK008900	75685
AK008988	70285
AK008994	107358
AK009014	69541
AK009074	107734 Mrpl30
AK009114	71885
AK009123	69487
AK009134	75572 Acyp2
AK009163	76730
AK009180	67484
AK009187	69482

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AK009213	75573
AK009243	69534 Avpi1
AK009267	28019 Ing4
AK009308	246257
AK009325	79043 Tce1
AK009343	71907 Serpina9
AK009344	76948
AK009362	99650
AK009365	76437 D11Bwg0414e
AK009375	52685 D11ErtD736e
AK009402	74252 Arcp
AK009436	67345
AK009447	66700 Vps24
AK009450	71904
AK009454	268721
AK009460	66053 Ppil2
AK009487	67863 Slc25a11
AK009497	69568 Vkorc111
AK009584	69639 Exosc8
AK009653	68544
AK009669	72309
AK009759	66958
AK009856	77039
AK009886	71923
AK009912	76467 Mrsb
AK009937	71941
AK009957	69692
AK009960	69697
AK010038	269587 Epb4.1
AK010113	70281
AK010147	73373
AK010152	66556 Drap1
AK010202	66968
AK010234	50724
AK010262	71955
AK010301	71973
AK010310	67755 Ddx47
AK010312	76483
AK010382	243983
AK010387	69748
AK010396	71986 Ddx28
AK010425	71957
AK010430	69219 Ddah1
AK010433	66609 Cryz11
AK010448	71968
AK010452	52666 D10ErtD610e
AK010453	69719 Cad
AK010466	76484
AK010476	71979
AK010511	11652 Akt2
AK010552	66984
AK010555	69746
AK010654	72425
AK010752	73694
AK010786	73710

AK010874	69834
AK010890	72308 Brf1
AK010898	72320
AK010939	68196 Hsbp1
AK011034	19139 Prps1
AK011126	268490
AK011127	67031 Upf3a
AK011160	72117 Mak3p
AK011184	67039
AK011196	67042
AK011230	72136
AK011231	72068 Cnot2
AK011290	67763
AK011354	67041 Oxct
AK011396	234729 D8Wsu151e
AK011446	70348
AK011457	75409 Slitrk5
AK011531	67788
AK011541	71810
AK011544	66254
AK011557	69903
AK011565	69904
AK011747	17237 Mgrn1
AK011781	72482 Acbd6
AK011810	68263 Pdhb
AK011832	72465 Zfp131
AK011862	28018 D7Wsu128e
AK011881	67148
AK011950	67157
AK011978	269003
AK012054	72519
AK012087	70028
AK012097	72155
AK012109	72194
AK012134	72195
AK012159	72542
AK012212	107581 Col16a1
AK012224	76795
AK012240	66399
AK012283	72569
AK012292	72561
AK012304	72612
AK012326	52323 D5Erttd363e
AK012392	76816 Sdccag8
AK012475	330203
AK012503	72563
AK012535	101513 Al256456
AK012553	77015
AK012601	67622
AK012610	72654
AK012624	72621
AK012635	69920 Polr2i
AK012711	69226 Snx24
AK012733	76366
AK012765	69938 Scrn1
AK012842	72686

AK012847	72674
AK012848	72701
AK012885	67212 Mrpl55
AK012922	72681
AK012969	74200
AK012971	74201
AK013003	67610
AK013012	72184
AK013035	20621 Snn
AK013044	106200
AK013055	67059
AK013135	75620
AK013145	72174
AK013166	67607
AK013175	28027 D4Wsu132e
AK013202	20467 Sin3b
AK013245	72748
AK013267	72747
AK013269	72759
AK013280	67229
AK013309	170707 Usp31
AK013367	72792
AK013393	72843 Prdm4
AK013402	109785 Pgm3
AK013427	104884
AK013464	67515
AK013511	72900 Ndufv2
AK013595	72871
AK013604	72880
AK013609	72881 Zdhhc4
AK013632	72894
AK013727	14397 Gabra4
AK013800	73053
AK013837	73090
AK013856	23938 Map2k5
AK013872	72397
AK013880	70223 Nars
AK013924	12301 Cacybp
AK013927	73099
AK013948	69269 Scnm1
AK013995	73078
AK014029	73068 Fut11
AK014134	73172
AK014142	67287
AK014178	56738 Mocs1
AK014230	216877 Dhx33
AK014235	73192 Xpot
AK014285	76965
AK014338	74840 Armet
AK014408	74315
AK014487	257635 Sdsl
AK014579	74347
AK014582	70807 Arrdc2
AK014623	66701
AK014680	74617
AK014709	74585 4833416l09Rik

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AK014752	75768
AK014763	75769
AK014772	74592
AK014834	75778
AK014863	70853
AK014891	14479 Usp15
AK014942	76856
AK014948	66719
AK014993	70961
AK015007	77048
AK015063	75773
AK015086	73809
AK015106	106039 Gga1
AK015275	73945 D8Ertd69e
AK015309	75792
AK015402	74862
AK015452	75796 Cdy12
AK015555	74919
AK015642	75036
AK015650	67509
AK015766	75083
AK015803	225980
AK015818	75075
AK015898	75141 Rasd2
AK015916	73866
AK015921	75209 Sv2c
AK015947	68195 Rnaset2
AK015971	75829
AK015972	75137
AK015988	75146
AK016000	56428 Mtch2
AK016018	75163
AK016037	75212 Rnf121
AK016128	75359
AK016162	
AK016214	75275
AK016247	18640 Pfkfb2
AK016267	65103 Arl6ip6
AK016282	75863
AK016299	75894
AK016352	66722
AK016374	75879
AK016385	52348 D8Ertd531e
AK016397	66362
AK016466	70965
AK016475	70981
AK016480	
AK016509	71003
AK016517	75725
AK016520	71745 Cul2
AK016542	74386
AK016563	51885 D2Ertd435e
AK016572	74411
AK016584	72230
AK016622	74438
AK016671	74412 Gle1l

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AK016685	74443
AK016704	74434
AK016786	71804
AK016812	74085
AK016865	71164 Zdhhc20
AK016873	71192
AK016890	71099
AK016916	109242 Kif24
AK016990	74481
AK017020	71241 Dmrta2
AK017044	71304
AK017081	74480 Samd4
AK017095	71240 Osbpl7
AK017138	74471
AK017149	75964
AK017158	75965
AK017214	71323
AK017226	75734
AK017249	11842 Arf3
AK017256	71326 Trem1
AK017270	237943
AK017282	71373
AK017309	71382 Pex1
AK017464	75747 Sesn3
AK017484	67023
AK017491	70478 Mipep
AK017528	69227
AK017530	70502
AK017531	73998 Herc3
AK017550	59032
AK017577	74741
AK017628	70556
AK017676	70594
AK017726	70625 Crsp7
AK017736	70616 Sf4
AK017750	70623
AK017761	70619
AK017769	70614
AK017801	68021
AK017808	70652
AK017848	74329
AK017929	76007 Zfp198
AK018027	277250
AK018060	76131
AK018089	76137
AK018115	74007 Btbd11
AK018132	74008
AK018155	70750
AK018159	18549 Pcsk2
AK018222	76161
AK018327	76206
AK018331	76205 Stard3nl
AK018362	71468 Obox1
AK018495	74536
AK018541	71564
AK018551	107022

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AK018560	67556 Pigm
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AK018585	74558
AK018594	68145
AK018599	22353 Vip
AK018615	71597
AK018680	66251 Arfgap3
AK018731	68193 Rpl24
AK018937	78636
AK018953	68214
AK019059	59040 Arht1
AK019147	19084 Prkar1a
AK019168	68991
AK019176	93687 Csnk1a1
AK019216	78832
AK019434	28040 D6Wsu163e
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AK019481	68260
AK019514	78104
AK019527	78903 Wrnip1
AK019531	78902
AK019538	78092
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AK019605	78799
AK019621	78796
AK019664	78801
AK019665	78174
AK019744	78931
AK019803	78217
AK019863	77634
AK019886	68151
AK019929	78283
AK019938	321015
AK019948	78095
AK019985	77521
AK020024	106504 Stk38
AK020090	68176
AK020099	68180
AK020225	77506
AK020284	77669
AK020352	78242
AK020377	67791
AK020410	52120 D8Ert354e
AK020441	77272
AK020471	12631 Cfl1
AK020492	77305
AK020608	78425
AK020613	78672
AK020653	78558
AK020687	78083
AK020700	77763
AK020702	78428
AK020724	77578 Bcl9

AK020727	77754
AK020780	77929
AK020831	77794
AK020837	77799 Sla2
AK020859	68146
AK020868	68073
AK021006	110920 Stch
AK021023	78688 Nol3
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AK021066	77318
AK021099	77462
AK021152	77643
AK021166	77609
AK021190	77644
AK021200	13057 Cyba
AK021301	78578
AK021330	77996
AK021336	77994
AK021396	78550
AK027262	235402 Lrn6a
AY007717	70603 Mutyh
AY026384	192655 Cacna1i
BC002157	100273 Osbpl9
BC002178	93747 Echs1
BC002191	108902
BC002193	110279 Bcr
BC002199	211556 BC002199
BC002230	217827 BC002230
BC002240	66310
BC002274	69216
BC002298	19283 Ptpz1
BC002302	106583 Rbm16
BC002306	245841 Polr2h
BC002307	27878 D1Ert251e
BC003235	71665 Fuca
BC003237	98985 Al462438
BC003247	229725 Mclc
BC003255	228355 Madd
BC003284	73828 Wdr21
BC003288	28088 D10Wsu52e
BC003335	106344 Rfc4
BC003451	232087 Mat2a
BC003457	108645
BC003842	97112 C87860
BC003847	77125
BC003914	58875
BC003922	52615 D11Ert2530e
BC003932	67278
BC003959	286940 Flnb
BC003975	30853 Mlf2
BC003986	
BC004000	170791 Rnpc2
BC004012	192185 BC004012
BC004062	234959 Crsp6
BC004064	20682 Sox9
BC004098	192287

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BC004626	72722
BC004630	216549
BC004635	102607 Snx19
BC004648	74737
BC004653	67155
BC004680	13052 Cxadr
BC004739	213211 Rnf26
BC004754	21351 Taldo1
BC004759	171095 Il17rc
BC004761	233066 Al428936
BC004764	56690 Mlycd
BC004766	71799 Ptdc1
BC004768	
BC004811	224742 Abcf1
BC004826	57278 Lu
BC005459	102866 Pls3
BC005485	99543 Olfml3
BC005494	216157 ORF61
BC005515	100090 Hkr3
BC005517	71704 Arhgef3
BC005518	76867
BC005574	67976
BC005598	98221 Ga17
BC005600	70231 Gorasp2
BC005603	68776 Taf11
BC005625	217038
BC005658	69957 Cdc16
BC005674	142682 AA792890
BC005741	233835 Tnrc6
BC005744	72144 Slc37a3
BC005755	70465
BC005774	
BC005788	71994 Cnn3
BC006063	75570
BC006805	72692
BC006905	75608
BC008101	68939
BC009123	72704
BC009141	75062 Sf3a3
BC011091	109815 H47
BC011482	23943 Mbc2
BC012407	110695 Aldh7a1
BC012512	67398 Srpr
BC012878	77034
BC013471	77056
BC013555	70650 Zcchc8
BC013716	15499 Hsf1
BC013800	67063
BC014687	68964
BC014769	73166 Tm7sf2
BC015253	11688 Alox15b
BC015273	110157 Raf1
BC016073	68916
BC016080	103963 Rpn1

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BC016258	71732 Vps11
BC016444	75273
BC017130	224938 Pja2
BC017138	109168
BC017532	105501 Abhd4
BC017606	72605 Car10
BC017615	94249 Slc24a3
BC017625	68047
BC017627	66995
BC017636	110796 Sdccag33
BC018162	73847
BC018329	70380
BC018468	66753
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NM_018802	55925 Syt8
NM_018803	54526 Syt10
NM_018804	229521 Syt11
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NM_018826	54352 Irx5
NM_018855	104346 Gas8
NM_018871	22628 Ywhag
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NM_018882	14766 Gpr56
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NM_019509	
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NM_019512	56070 Tcerg1
NM_019535	20404 Sh3gl2
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NM_021382	21338 Tacr3
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NM_021793	60455 Tmem8
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NM_080287	140579 Elmo2
NM_080428	50754 Fbxw7
NM_080639	110595 Timp4
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S82853	21915 Dtymk

Figure 1-34

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U64606	17977 Ncoa1
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X74504	27883 D16H22S680E
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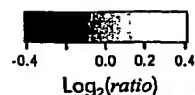
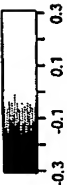


Figure 2

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_024471	79464	Lias	mitochondrion	misc
	NM_019487	56016	Hebp2	cytoplasm;extracellular	misc
	NM_011793	23825	Banf1	integral to membrane;nucleus	misc
	BC004811	224742	Abcf1	integral to plasma membrane	transport
	NM_010250	14394	Gabra1	extracellular space;integral to	signaling
	NM_009557	22704	Zfp46	transcription factor complex	transcription
	AF104414	16798	Lats1		signaling ?
	L32178	232333	Slc6a1	integral to plasma membrane	transport
	AF407579	140859	Nek8		signaling ?
	AK016018	75163			unknown
	NM_008703	18101	Nmbr	integral to plasma membrane	signaling (receptor)
	NM_007574	12262	C1qg	extracellular space	signaling
	AK005842	71840		membrane	ctsk
	U14172	13669	Elf3s10		translation
	NM_008955	19202	Psx1	transcription factor complex	transcription
	M36654	15412	Hoxb4	transcription factor complex	transcription
	NM_018754	55948	Sfn	cytoplasm;extracellular space	cell cycle ?
	NM_007474	11833	Aqp8	integral to plasma membrane;mito	transport
	AK018561	71546			unknown
	AK002458	68339		myosin	unknown
	NM_054066	114875	Plcz1		signaling
	NM_019703	56421	Pfkfb	6-phosphofructokinase complex	metabolism
	NM_017461	54204	sep-01	mitochondrion	cell cycle
	NM_009228	20648	Snta1	cytoskeleton;postsynaptic membra	signaling
	NM_022418	64295		extracellular space;integral to	unknown
	BC011091	109815	H47	integral to membrane	unknown
	NM_007557	12162	Bmp7	extracellular space	signaling (secreted)
	AK006467	75568		protein kinase CK2 complex	signaling
	NM_011102	18752	Prkcc		signaling
	AK011127	67031	Upf3a		misc
	NM_008604	17380	Mme	integral to plasma membrane	protein degradation
	AK019929	78283			unknown
	AK019168	68991		membrane	unknown
	AK018155	70750		extracellular space	tumor related (secretion)
	AK007941	67509			unknown
	AF223953	54208	Arl6ip1	cytosol;integral to membrane;tra	translation
	NM_015764	268527			transport
	NM_008538	17118	Marcks	membrane	signaling
	NM_019639	22190	Ubc	nucleus	protein degradation
	AK016247	18640	Pfkfb2	cytosol	metabolism
	AK011544	66254			transcription
	NM_019509				unknown
	NM_008120	14612	Gja4	connexon complex;integral to mem	signaling (receptor)
	NM_008085	14447	Gapds		metabolism
	AK015402	74862			unknown

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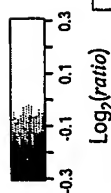
Figure 3



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_026318	67693		nascent polypeptide-associated c	unknown
AF035526	20534	Sic4a1ap	Integral to plasma membrane	transport
AK013145	72174		extracellular	unknown
NM_033613	112403	Dom3z	Integral to membrane	misc
NM_022318	64082	Popdc2	Integral to membrane	unknown
NM_021879	18431	P	Integral to membrane	misc
AK008151	70114			unknown
NM_025975	67117	Tctc1l	cytoplasmic dynein complex	unknown
NM_008866	18777	Lypla1	mitochondrion	lipid metabolism
NM_008955	19202	Psx1	transcription factor complex	transcription
NM_020024	24075	Taf10	focal adhesions;transcription fac	transcription
AK012601	67622			unknown
AF297860	104776	Aldh6a1	mitochondrion	metabolism
AK010466	76484			unknown
NM_019921	56697	Akap10	mitochondrion	transport?
AK013055	67059			unknown
NM_019759	56429	Dpt	extracellular matrix;extracellul	cell adh
AK012922	72681			unknown
NM_013843	24132	Zfp118	transcription factor complex	misc
NM_011994	26874	Abcd2	Integral to plasma membrane;pero	lipid metabolism
NM_026304	67669			unknown
NM_016960	20297	Ccl20	extracellular space	immune response
AK020225	77506			unknown
NM_008133	14661	Glud	mitochondrion	metabolism
AK021023	78688	Nol3	nucleus	apoptosis
X61453	50884	Nckap1	Integral to membrane	unknown
NM_080428	50754	Fbxw7	Golgi apparatus;endoplasmic ret	protein degradation
NM_008821	18630	Pet2	extrachromosomal circular DNA	transcription
NM_023537	69908	Rab3b	synaptic vesicle	signaling
NM_018811	54608	Abhd2	Integral to membrane	unknown
AF121976	57250	Ors19	Integral to membrane	signalling (receptor)
NM_025989	67133	Gp2	extracellular space;membrane	transport
AK019886	68151			unknown
NM_011908	24109	Ubi3		unknown
NM_025785	66822	Fbxo25		unknown
BC009123	72704			unknown
BC005600	70231	Gorasp2	Golgi membrane	unknown
AK009308	246257		cytoplasm	tumor related

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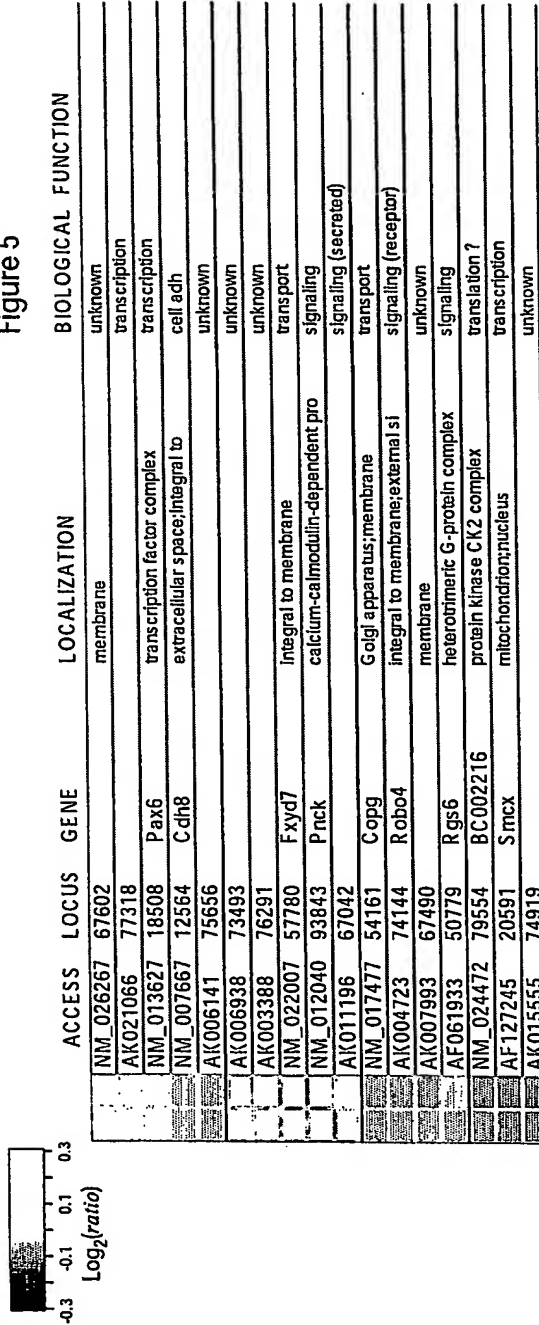
Figure 4



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
U51204	100732	Mapre3		ctsk
NM_023133	20085	Rps19	cytosolic ribosome (sensu Eukary	translation
AK011034	19139	Prps1	cytoplasm	metabolism
NM_021382	21338	Tacr3	integral to membrane; plasma memb	signaling (receptor)
NM_011801	23837	Cfdp	basement membrane; integral to me	apoptosis
NM_019512	56070	Tcerg1	nuclear matrix	transcription
AK007415	69046	Hblid2		unknown
NM_011665	22196	Ube2i		protein degradation
AF150755	11426	Macf1	actin cytoskeleton; microtubule c	ctsk
NM_025978	67120		cytoplasm	unknown
BC012512	67398	Srpr	integral to membrane; signal reco	transport
NM_008589	17293	Mesp2	extracellular space; membrane	signaling (development)
AK016385	52348	D8Etd531e		unknown
AK009856	77039			unknown
AK003256	74320			misc
NM_011541	21399	Tcea1	nucleus	Transcription
BC016210	67017		extracellular space; integral to	unknown
NM_026519	68032			immune response
AK004431	66090			unknown
NM_008382	16326	Inhbe	extracellular space	growth factor (secreted)
NM_025612				unknown
BC016080	103963	Rpn1	endoplasmic reticulum; extracellu	lipid metabolism
AK008703	75669	Plk3r4		signaling
NM_021606	59126	Nek6		signaling
AK009123	69487		extrachromosomal circular DNA	metabolism
AK009074	107734	Mirp130	mitochondrial ribosome	misc
NM_015819	50786	Hs6st2	extracellular space	ecm
NM_011203	19248	Ptpn12	soluble fraction	Signaling

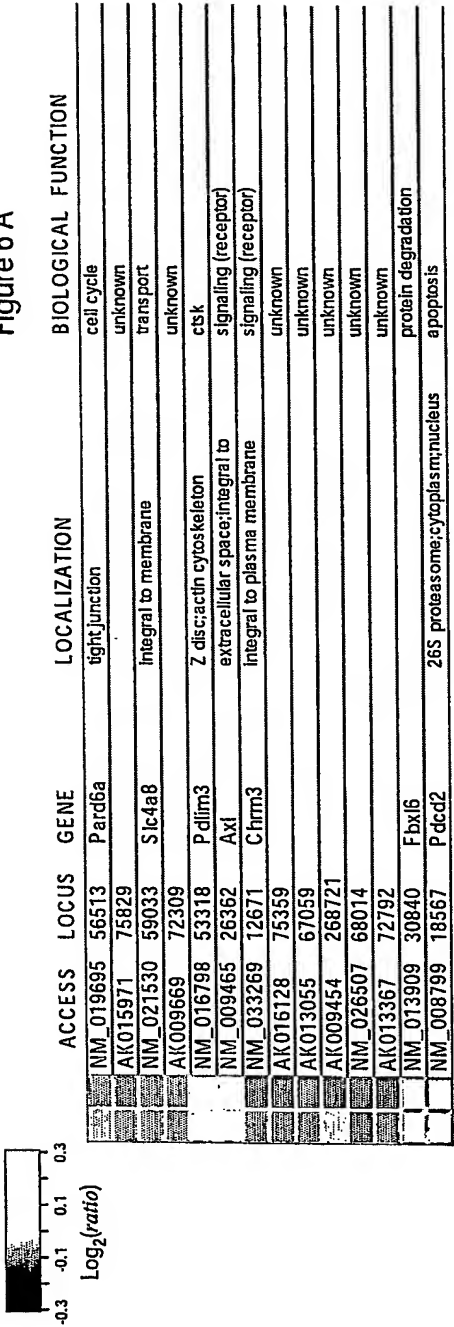
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Figure 5



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Figure 6 A



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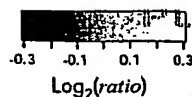
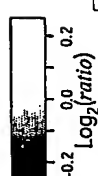


Figure 6 B

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_009153	20347	Sema3b	endoplasmic reticulum;extracellu	growth factor (secreted)
	NM_008604	17380	Mme	integral to plasma membrane	protein degradation
	NM_025922	16434	Itga		metabolism
	AK009187	69482			unknown
	NM_009551	22682	Zfp216		transcription ?
	AK008753	70387			unknown
	NM_008339	15985	Cd79b	extracellular space;integral to	signaling (receptor)
	AK005734	75470			unknown
	NM_010010	13116	Cyp46a1	endoplasmic reticulum;extracellu	transport
	AK003132	75406	Ndufs7	extracellular space;mitochondrio	metabolism
	AB036708	170828	Vgll1		transcription
	NM_019825	56406	Ncoa6	transcription factor complex	transcription
	NM_021459	16392	Isl1	nucleus	transcription
	NM_021291	30962	Slc7a9	integral to membrane	transport
	M36514	22688	Zfp26	nucleus	transcription
	NM_026908	69008			unknown
	AK012733	76366		voltage-gated potassium channel	transcription ?
	AK018089	76137			unknown
	AK006222	72251			unknown
	AB047921	67210		nucleus	transcription ?
	NM_026298	67661	Wim	kinesin complex	unknown
	NM_011202	19247	Ptpn11	cytoskeleton	signaling
	AK007933	72282			unknown
	AK003282	66496			unknown
	AK018495	74536			unknown
	AK002769	71683	Gypc		unknown
	NM_019977	56727	Aldrl6	cytoplasm;inclusion body	metabolism
	NM_010473	15464	Hrc	extracellular space;smooth endop	signaling
	AK010476	71979			unknown
	NM_019475	29847	Olf157	integral to plasma membrane	signaling (receptor)
	NM_019741	56485	Slc2a5	integral to membrane	transport
	NM_009660	11687	Alox15	plasma membrane	lipid metabolism
	NM_024199	67337	Cstf1	mRNA cleavage stimulating factor	transcription
	NM_053178	94180			metabolism ?
	NM_011638	22042	Trfr	endosome;integral to membrane;pl	signaling
	AK004679	73340	Nptxr	chromatin;extracellular space;in	transcription
	NM_008492	16832	Ldh2	cytosol	metabolism
	AK007494	69064			unknown
	AK020410	52120	D8Ert354e	integral to membrane	unknown
	AK004803	66875		eukaryotic translation elongatio	translation ?
	AJ131821	11938	Atp2a2	integral to plasma membrane;micr	transport
	NM_009079	19934	Rpl22	cytosolic ribosome (sensu Eukary	translation
	AK016352	66722		axoneme;microtubule	unknown
	NM_025736	66736		nucleus	unknown
	NM_016973	50935	Siat7f	Golgi apparatus;integral to memb	misc
	NM_009854	12516	Cd7	extracellular space;integral to	immune response (receptor)
	AK019216	78832			unknown
	NM_015776	50530	Mfap5	extracellular space;microfibril	ecm
	NM_007995	14133	Fcna	extracellular space	immune response (secreted)
	AK019744	78931			unknown
	AK008994	107358		extracellular space;integral to	transport
	AK017726	70625	Crsp7	transcription elongation factor	transcription
	AK004139	68735		mitochondrion;ribosome	translation
	AK010312	76483		integral to membrane	unknown
	AK005661	69082			signaling (receptor)
	AK013837	73090			unknown
	NM_009481	22284	Usp9x	26S proteasome	protein degradation
	BC005658	69957	Cdc16		cell cycle
	NM_025427	66214		cytoplasm;nucleus	cell cycle
	NM_023422	68024	Hist1h2bc	nucleosome;nucleus	misc
	AK012610	72654			unknown
	NM_011740	22631	Ywhaz	cytoplasm	signaling
	AF062567	20687	Sp3	transcription factor complex	transcription

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Figure 7



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_007761	12909	Crcp		signaling (receptor)
AK013044	106200			translation ?
NM_031174	13508	Dscam	extracellular space;integral to	cell adh
NM_011492	20869	Sk11	microtubule cytoskeleton	signaling
AK002490	20195	S100a11	cytoplasm	signaling
NM_019724	17389	Mmp16	extracellular matrix;extracellul	protein degradation
NM_009579	22782	Slc30a1	extracellular space;integral to	transport
AK017736	70616	Sf4	intracellular	transcription
NM_018779	54611	Pde3a	integral to membrane	signaling
BC004766	71799	Ptcd1	ribosome	unknown
NM_018798	54609	Ubqln2	endoplasmic reticulum membrane	unknown
AK013995	73078		mitochondrion	misc
NM_011356	20378	Frzb	extracellular space;membrane	signaling
NM_008969	19224	Ptgs1	cytoplasm;extracellular space;me	signaling
NM_025457	66268			unknown
NM_016698	50849	Rnf10		transcription
NM_023605	71538	Fbxo9	ubiquitin ligase complex	protein degradation
BC005788	71994	Crm3	cytoskeleton	ctsk ?
AF237628	93677	Lmod2	cytoskeleton	ctsk
NM_023597	71354	Wdr31	membrane	transport
L17069	214162	Mil	nucleus	Transcription
NM_019714	21888	Tle4	nucleus	transcription
X76850	17164	Mapkapk2		signaling
AK012885	67212	Mrip155	membrane	unknown
NM_025577	66462			unknown
NM_018731	11944	Atp4a	integral to membrane	metabolism
NM_007555	12160	Bmp5	extracellular space	ECM
AK003586	231712			unknown
AK002574	68348			unknown
AK007389	107686	Snrpd2	small nucleolar ribonucleoproteal	transcription
AK004975	71770	Ap2b1	clathrin adaptor complex;coated	transport
NM_020567	57441	Gmn	nucleus	cell cycle
AK017769	70614			unknown
NM_007393	11461	Actb	cytoskeleton	ctsk
AK010752	73694			unknown
NM_009015	19366	Rad54l	nucleoplasm	cell cycle
AK002704	68365	Rab14		signaling
AK002252	68323			unknown
NM_008537	17117	Amacr	mitochondrion;peroxisome	metabolism
AB048834	64435	Fcamr	integral to membrane	protein degradation
NM_026187	52231	D1Ert0161e		transcription ?

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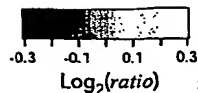


Figure 8 A

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_025573	108014	Sfrs9	membrane;spliceosome complex	transcription
	NM_023290	67027	Mkm2	intracellular;membrane	unknown
	AK003661	68520			unknown
	AK016812	74085			tumor related
	AK014680	74617		extracellular space;vacuole	ecm
	AF320126	14816	Grm1	Integral to membrane	Signaling (receptor)
	NM_009100	20129	Rptn	extracellular	ecm
	AK014134	73172		extrachromosomal circular DNA	unknown
	NM_011673	22234	Ugcg	endoplasmic reticulum;extracellu	lipid metabolism
	BC002191	108902		extracellular space	misc
	NM_025628	110323	Cox6b	respiratory chain complex IV (se	transport
	AF346413	75526	Spnlw1	acrosome;extracellular space	protein degradation
	NM_007524	12020	Bapx1	transcription factor complex	transcription
	AK013012	72184			unknown
	NM_026700		2 loci		unknown
	NM_007748	12861	Cox6a1	Integral to membrane;respiratory	metabolism
	NM_023530	69836	Pla2b12b	extracellular space	lipid metabolism
	AK004655	74107			translation
	AF228925	72088	Ush1c	cilium	signaling
	NM_011813	23877	Fiz1	transcription factor complex	transcription
	NM_008997	19326	Rab11b	Golgi apparatus	traffic
	NM_020590	57435	Gabarapl1	plasma membrane	ctsk
	NM_019932	56744	Cxcl4	extracellular space	immune response
	NM_028605	73682			unknown
	AF259674	107272	Psat1		metabolism
	NM_009352	21749	Terf1	chromosome-, telomeric region;nu	cell cycle
	NM_007791	13007	Csrp1	actin cytoskeleton;nucleus	ctsk
	AK004617	66861	Dnajc10	endoplasmic reticulum;mitochondr	translation
	NM_019950	56773	Chst5	Golgi apparatus;extracellular sp	translation
	NM_011293	20022	Polr2j	DNA-directed RNA polymerase II-,	transcription
	NM_010770	17182	Matn3	extracellular matrix;extracellul	ecm
	NM_007607	12351	Car4	extracellular space;membrane	metabolism (secreted)
	L34676	11784	Apba2		signaling
	NM_053115	93732	Acox2	peroxisome	metabolism
	AK005048	223776		extracellular space	metabolism
	NM_013519	14234	Foxc2	transcription factor complex	transcription
	NM_011197	19221	Ptgfr	extracellular space;Integral to	translation (receptor)
	NM_011714	22385	Baz1b	centric heterochromatin;condense	misc
	NM_011607	21923	Tnc	extracellular space	cell adh
	BC002302	106583	Rbm16		cell cycle
	NM_030744	76378	Ropn1	Integral to membrane;mitochondri	transport
	NM_016705	16564	Kif21a	kinesin complex	ctsk
	AK014623	66701			unknown
	NM_011961	26432	Plod2	endoplasmic reticulum;extracellu	metabolism
	NM_013723	27205	Podxl	extracellular space;Integral to	immune response (receptor)
	NM_008357	16168	Il15	extracellular	growth factor (secreted)

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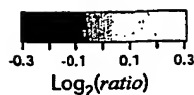
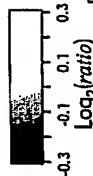


Figure 8 B

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	BC018470	23960	Oas1g		immune response
	AB055635	26931	Ppp2r5c	nucleus;protein phosphatase type	signaling
	AF105217	57813	Tk2	mitochondrion	metabolism
	NM_018871	22628	Ywhag		signaling
	AF155583	18089	Nkx2-3	transcription factor complex	transcription
	NM_025424	66208		extracellular space;membrane	transport
	NM_023191	66317		heterotrimeric G-protein complex	signaling ?
	NM_024273	76916		integral to membrane;mitochondri	unknown
	AK009460	66053	Ppil2	nucleus	translation
	NM_011857	23965	Odz3	integral to plasma membrane	unknown
	NM_011389	20495	Slc12a1	integral to plasma membrane	transport
	AK006490	66938			immune response ?
	NM_008738	18188	Nrtn	extracellular space	signaling (secreted)
	NM_021789	60409	Trappc4	Golgi apparatus;endoplasmic reti	traffic
	NM_009781	12288	Cacna1c	T-tubule;voltage-gated calcium c	ion channel
	AK006079	76405		ubiquitin ligase complex	unknown
	NM_020560	57312	Mrps31	mitochondrion;nucleus	transcription
	AK002667	67899		cytoplasm	unknown
	NM_026514	260409	Cdc42ep3	plasma membrane	ctsk
	NM_009679	11773	Ap2m1	clathrin vesicle coat/coated pit	traffic
	NM_013906	30806	Adamts8	extracellular matrix;extracellul	ecm
	NM_016714	18141	Nup50	nuclear pore	transport
	AK012134	72195		nucleus	transcription
	NM_026908	69008			unknown
	AK019803	78217			unknown
	NM_026367	67769		extracellular matrix	unknown
	AK013880	70223	Nars	cytoplasm;soluble fraction	metabolism
	AK010147	73373			unknown
	NM_019764	56332	Amotl2	tight junction	cell adh
	NM_008317	15586	Hyal1		metabolism
	BC003959	286940	Flnb	focal adhesion;stress fibers	ctsk
	NM_026523	68039	Nmb	extracellular space	signaling (secreted)
	NM_008135	14664	Slc6a9	integral to plasma membrane	transport
	AK019527	78903	Wmip1	DNA replication factor C complex	misc
	X16493	22640	Zfp1	nucleus	transcription
	NM_019425	54342	Gnpat1	ER-Golgi intermediate compartmen	metabolism
	AK005562	72205		microtubule associated complex	traffic
	NM_021530	59033	Slc4a8	integral to membrane	transport
	NM_018874	18946	Pnlipr1	extracellular space	metabolism
	NM_013595	17192	Mbd3	chromatin;nucleus	transcription
	AK019481	68260			unknown
	NM_009584	22792	Zrf2	nucleus	cell cycle
	NM_008925	19089	Prkcsb	alpha-glucosidase complex;endopl	signaling
	NM_025301	27397	Mrpl17	mitochondrial large ribosomal su	misc
	NM_011251	19654	Rbm6	spliceosome complex	misc
	NM_009197	20502	Slc16a2	integral to plasma membrane	transport
	AK020024	106504	Stk38		signaling ?
	AK014285	76965			unknown
	AK008800	70082		membrane	unknown
	NM_009369	21810	Tgfb1	extracellular matrix;extracellul	cell adh
	BC013800	67063			unknown
	NM_031493	27084	Xlr5	synaptonemal complex	unknown
	NM_009746	12055	Bcl7c	extrachromosomal circular DNA	tumor related

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Figure 9 A



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_021565	59090	Mtdn	nucleolus	unknown
NM_011550	21428	Tcf4	cytoplasm;transcription factor c	transcription
NM_025654	66599	Rad52b		unknown
AK007485	69053			unknown
NM_031184	83396	Gli5	transcription factor complex	transcription
NM_019535	20404	Sh3gl2	cytoplasm	signaling
NM_016673	12804	Cnfr	extracellular space;membrane	signaling (secreted)
NM_052975	94185	Tnfrsf21	integral to membrane	apoptosis
NM_026095	67332	Snrpd3	ribonucleoprotein complex;viral	misc
NM_016676	19325	Rab10	Golgi apparatus	tumor related
AK021166	77609			unknown
AJ288061	76707	Clasp1	cytoplasmic microtubule;microtub	ctsk
AK006739	22217	Usp12		protein degradation
NM_011595	21859	Timp3	basement membrane	protein degradation
AK013044	106200			translation ?
AK005730	69318			unknown
BC002191	108902			misc
AK019605	78799		extracellular space	immune response
AK005044	74157		nucleolus	misc
NM_008574	17235	Mesp	mitochondrial outer membrane	misc
AK017801	68021		extrachromosomal circular DNA	unknown
NM_015803	50769	Atp8a2	integral to membrane	transport
AK018060	76131		myosin	signaling

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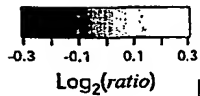
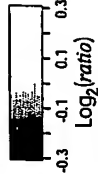


Figure 9 B

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	AK019462	20643	Snrpe	small nucleolar ribonucleoprotein	transcription
	AK011160	72117	Mak3p	spliceosome complex	transcription
	NM_010826	17540	Mrv1	endoplasmic reticulum membrane;l	transport
	AK019863	77634			translation
	NM_016806	53379	Hnrpa2b1	nucleus;ribonucleoprotein comple	transcription
	AK018132	74008		lysosome	signaling
	U61363	21888	Tle4	nucleus	transcription
	NM_013890	30050	Fbxw2	cytoplasm;extrachromosomal circu	signaling
	NM_017462	18975	Polg	gamma DNA polymerase complex	cell cycle
	NM_008857	18759	Prkl	plasma membrane	signaling
	NM_019724	17389	Mmp16	extracellular matrix;extracellul	protein degradation
	NM_008602	17344	Miz1	nucleus;septin ring	transcription
	NM_029292	75453			unknown
	AK017929	76007	Zfp198	nucleus	transcription
	AK002704	68365	Rab14		signaling
	NM_025282	17260	Med2c	mediator complex	transcription
	NM_019460	54650	Sfmbt1	chromatin	transcription
	AK009213	75573			unknown
	AK004323	66201			unknown
	AK019803	78217			unknown
	NM_013535	14790	Grc10		unknown
	AK008734	72349	Dusp3		signaling
	NM_011012	18389	Opr1	Integral to plasma membrane	signaling (receptor)
	NM_023336	67382	Brd3	Integral to membrane;nucleus	signaling ?
	M63245	11655	Alas1		metabolism
	AK010433	66609	Cryz1l		metabolism
	NM_052973	94186	Strn3		signaling ?
	NM_008956	19205	Ptbp1	nucleolus;nucleoplasm	transcription
	NM_026559	52700	D11E rtd672e		transport
	NM_011522	20974	Syng3	Integral to plasma membrane	unknown
	AK005063	110351	Rap1ga1		signaling
	AK009308	246257		cytoplasm	tumor related
	BC006063	75570			unknown
	AK004664	73830			unknown
	BC004648	74737			unknown
	D86949	18845	Plxna2	extracellular space;integral to	signaling
	AK004943	66627		endoplasmic reticulum	unknown
	NM_029716	108699	Chn1	cytoplasm	signaling
	AK006525	70375			misc
	NM_009084	19981	Rpl37a	cytosolic ribosome (sensu Eukary	translation
	AK006959	74279			unknown
	BC003986				unknown
	AK016890	71099		microtubule cytoskeleton	signaling ?
	NM_019836	56412		extracellular space;integral to	unknown
	NM_025633	66559	Metap1	Integral to plasma membrane	protein degradation
	AK007339	99730	Taf13	transcription factor TFIID compl	transcription
	NM_021371	140904	Caln1		signaling
	NM_019754	56370	Tagln3	cytoskeleton	ctsk
	NM_012030	26941	Sic9a3r1	actin cytoskeleton;apical plasma	ctsk
	U89513	73647	Capn9	Intracellular	misc
	NM_007997	14149	Fdxr	mitochondrion	metabolism
	AK005095	69757	Leng1	extracellular space	unknown
	AB035322	108897		centriole	unknown

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Figure 10A



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
AK017095	71240	Osbp17		metabolism
AK013393	72843	Prdm4		transcription
AK002360	64697	Keg1	mitochondrion	unknown
NM_019512	56070	Tcerg1	nuclear matrix	transcription
NM_009257	20724	Serpinb5	cytoplasm	tumor related (suppressor)
NM_010837	17760	Mtap6	microtubule associated complex	ctsk
AK012212	107581	Col16a1	collagen	ecm
AF332067	75425			metabolism
NM_010476	15490	Hsd17b7	endoplasmic reticulum;integral t	metabolism
AK012635	69920	Polr2i	DNA-directed RNA polymerase II,	transcription
AF237917	109225			signaling
NM_011552	21453	Tcof1	nucleolus	misc
NM_025389	56156	Anapc11	anaphase-promoting complex	cell cycle
AF246218	192192	Shkbp1	voltage-gated potassium channel	ion channel
AK016214	75275			unknown
AK005619	72215			unknown
NM_010255	14431	Gamt	cytoplasm	metabolism
AK003201	68472			unknown
NM_008995	19305	Pex5	peroxisomal membrane	transport
AK004928	56275	Rbm14	cytoplasm;mediator complex;ribon	transcription ?
NM_019663	56469	Plas1	nucleus	transcription
AK005864	75645			unknown
AK008008	69824		extrachromosomal circular DNA	misc
AB071988	26914	H2afy	centrosome;condensed chromosome;	cell cycle
NM_011529	21353	Tank	cytoplasm	signaling
NM_009325	21390	Tbra2r	integral to membrane	signaling (receptor)
NM_023383	67758	Aadac	extracellular space;microsome	lipid metabolism
AK013464	67515		protein serine-threonine phosphatase	signaling (osmotic response)
NM_016914	53856	Prg3	extracellular space	ecm
NM_008957	19206	Ptch	integral to plasma membrane	signaling (receptor)
AK006521	99349		cytoplasm	translation
AF327857	232288			unknown
AK017464	75747	Sesn3	nucleus	cell cycle

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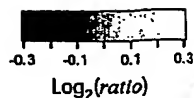
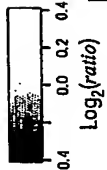


Figure 10 B

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	AK003850	66151		extracellular matrix	ecm
	AK021190	77644			unknown
	AF190665	56873	Lmbr1		unknown
	NM_020004	14534	Gcn5l2	histone acetyltransferase comple	transcription
	AK009937	71941			transcription ?
	NM_025590	329910	Thea	cytoplasm	lipid metabolism
	AK020702	78428			unknown
	NM_018776	54394	Crlf3	membrane	signaling (receptor)
	NM_009536	22627	Ywhae		signaling
	NM_021793	60455	Tmem8	extracellular space;integral to	cell adh
	AK015007	77048		cytoskeleton	transport
	BC005485	99543	Olfml3	extracellular space	ecm
	NM_009476	22269	Upk2	endoplasmic reticulum;extracellu	tumor related
	NM_007966	14028	Evx1	transcription factor complex	transcription
	NM_009425	22035	Tnfrf10	extracellular space;integral to	apoptosis
	NM_008229	15182	Hdac2	cytoplasm;histone deacetylase co	transcription
	NM_021550	59048		integral to membrane	unknown
	NM_011292	20005	Rpl9	cytosolic ribosome (sensu Eukary	translation
	NM_022320	64095	Gpr35	Integral to membrane	signaling (receptor)
	NM_013750	27280	Phlda3	Integral to membrane	unknown
	AK005536	67883	Uxs1	integral to membrane	misc
	AK003676	68581		Golgi apparatus;integral to plas	traffic
	NM_013596	17203	Mc5r	integral to membrane	signaling
	AK014763	75769		integral to membrane	unknown
	AK003413	68001		ribosome	unknown
	NM_026428	67880	Dcxr	brush border;microvillus	metabolism
	AK012240	66399		mitochondrion	translation
	NM_021567	59092	Pcbp4	cytoplasm;nucleus;ribonucleoprot	transcription
	AF276975	192200	Swam2	extracellular space	metabolism
	NM_030677	14776	Gpx2	cytosol	misc
	NM_023450	68355		Integral to membrane	unknown
	NM_008998	19329	Rab17	early endosome	signaling
	NM_018884	55983	Pdzrn3	peroxisome	signaling
	AK009134	75572	Acyp2	extrachromosomal circular DNA	metabolism
	U14172	13669	Eif3s10		translation
	AK019664	78801			signaling ?
	AF332051	104112	Acly	Intracellular	metabolism
	NM_031184	83396	Gli5	transcription factor complex	transcription
	NM_008663	17921	Myo7a	myosin	ctsk
	NM_033616	114564	Csprs	nucleus	signaling
	AK017848	74329			unknown
	NM_026217	67526	Apg12l	cytoplasm	protein degradation
	NM_019725	21886	Tle2	nucleus	transcription
	AK003154	68420			unknown
	NM_009398	21930	Tnfaip6	extracellular space	cell adh
	AK017158	75965		nucleus	unknown
	AK018937	78636			unknown
	NM_025864	66950		Integral to membrane	unknown
	NM_010200	14168	Fgf13	extracellular space	signaling
	NM_021712	20508	Slc18a3	Integral to plasma membrane	transport
	AK016267	65103	Arl6ip6	Integral to membrane	unknown
	NM_008083	14432	Gap43	axon;membrane	signaling
	AK008791	74245		extracellular space;lysosome	protein degradation

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Figure 11A



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_008254	15356	Hmgcl	extracellular space;mitochondrio	misc
AK020724	77578	Bcl9	nucleus	immune response
NM_023066	65973	Asph	Integral to membrane	misc
AK005015	246277	Csad		metabolism
NM_026091	67326			unknown
AK009759	66958		chloroplast;integral to membrane	unknown
NM_027019	69287	Od3	extracellular space;outer dense	signalling (secreted)
NM_025368	66124			cell adh
AK015275	73945	D8Erd69e		unknown
AF317552	108062	Cst2	mRNA cleavage stimulating factor	translation
NM_019772	56372		Integral to membrane	protein degradation ?

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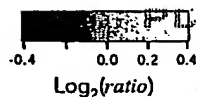
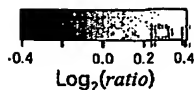


Figure 11 B

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	AK019621	78796			Transcription
	NM_023670	140488	Igf2bp3	cytoplasm	growth factor
	NM_008812	18600	Padi2	extracellular	translation
	NM_011242	19395	Rasgrp2	cytosol;nucleosome;plasma membra	signaling
	AK015947	68195	Rnaset2		metabolism
	AK011446	70348			unknown
	NM_007591	12317	Calr	endoplasmic reticulum lumen;extr	cell adhesion
	NM_022030	64051	Sv2a	Integral to membrane;synaptic ve	transport
	AK018331	76205	Stard3nl	Integral to membrane	unknown
	AF281870	64009	Syne1	nuclear membrane;sarcomere	ctsk
	AK009114	71885			cell adh ?
	NM_025367	20698	Sphk1	soluble fraction	signaling
	NM_023485	68828	Sync	Z disc;cytosol;intermediate fila	ctsk
	AK020492	77305			transcription
	NM_019477	50790	Faci4	cytoplasm;Integral to membrane	metabolism
	NM_026434	67889		viral nucleocapsid	unknown
	NM_008064	14387	Gaa	lysosome	misc
	NM_016782	53321	Cntnap1	extracellular space;Integral to	cell adh
	AK003179	66101	D4Wsu43e	spliceosome complex	transcription
	AK019547				unknown
	AK009014	69541		extracellular space	unknown
	NM_016717	50880	Scly	mitochondrial inner membrane	metabolism
	NM_028333	72713	Angptl1	extracellular space	growth factor
	NM_013541	14870	Gstp2	cytoplasm	metabolism
	X76850	17164	Mapkapk2		signaling
	BC017138	109168			Immune response ?
	NM_019643	56306	Tera		unknown
	NM_008791	18546	Pcp4		signaling
	NM_010891	18000	sep-02	contractile ring	cell cycle
	AK021099	77462			unknown
	AK014942	76856		Integral to membrane	transport
	NM_021548	59046	Arpp19	cytoplasm	transport ?
	AK009267	28019	Ing4		transcription
	NM_016665	20892	Stra13		transcription
	AK013427	104884			signaling
	NM_007538	12057	Opn1sw	Integral to membrane;photorecept	signaling
	NM_010010	13116	Cyp46a1	endoplasmic reticulum;extracellu	transport
	NM_008421	16502	Kcnc1	voltage-gated potassium channel	ion channel
	NM_008016	14210	Fin15		misc
	NM_011196	19218	Ptger3	Integral to membrane;plasma memb	signaling (receptor)
	NM_010259	14468	Gbp1	cytosol	immune response
	NM_031162	12503	Cd3z	Integral to membrane;plasma memb	immune response
	AF276974	192201		extracellular space	unknown
	AK002667	67899		cytoplasm	unknown
	AF369902	68291	Mto1	mitochondrion	metabolism
	NM_023814	76365	Tbx18	microtubule;nucleus	transcription
	AK015803	225980			unknown
	AK004550	71707		Integral to membrane	misc
	AK002360	64697	Keg1	mitochondrion	unknown
	NM_023266	104348	Zfp120	nucleus	unknown
	BC003255	228355	Madd	plasma membrane	apoptosis
	AK006487	75623			unknown
	NM_011423	20601	Smr3	extracellular	growth factor (secreted)
	NM_008125	14619	Gjb2	connexon complex;Integral to mem	signaling (receptor)
	AK017484	67023		mitochondrial matrix	transcription
	AK002842	68386			unknown
	NM_009555	22700	Zfp40	transcription factor complex	transport
	AK015309	75792			unknown
	NM_007567	12217	Bsn	cytoskeleton;Integral to membran	signaling
	NM_021354	13495	Drg2	mitochondrion	unknown
	AK016584	72230		nucleus	unknown
	AK017149	75964			unknown
	NM_008329	15951	Ifi16	nucleosome;nucleus	Immune response

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Figure 12



	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_009860	12532	Cdc25c	mitotic chromosome;nucleus	cell cycle
	AF369902	68291	Mto1	mitochondrion	metabolism
	NM_008729	18163	Catnd2	cytoskeleton	cell adhesion
	NM_020567	57441	Gmn	nucleus	cell cycle
	NM_009426	22044	Trh	extracellular space;soluble frac	growth factor (secreted)
	NM_010389	15002	H2-Ob	extracellular space;integral to	immune response (receptor)
	L21027	236539	Phgdh		metabolism
	AK008083	72041			unknown
	NM_008451	16594	Klc2	kinesin complex	ctsk
	AK003996	68668		extracellular space	protein degradation
	NM_008106	14539	Opn1mw	integral to plasma membrane;phot	signaling (receptor)
	AK008125	228880			unknown
	NM_019957	56629	Dnase2b	cytoplasm;extracellular space	misc
	AK009243	69534	Avpi1		signaling
	AK007831	68115			unknown
	NM_008571	17225	Mcpt2	cytoplasm;extracellular space	protein degradation
	AK011565	69904			unknown
	NM_011835	23924	Katna1	cytoskeleton;lipid particle;nuc	cell cycle ?
	AK010396	71986	Ddx28	extracellular space;ribulose bis	unknown
	NM_019695	56513	Pard6a	tight junction	cell cycle
	AK011290	67763		extracellular space	metabolism
	NM_013542	14939	Gzmb	cytoplasm;extracellular space	protein degradation
	NM_011617	21948	Tnfrsf7	integral to membrane	tumor related
	AK006993	73486		ribosome	unknown
	NM_026417	67864		integral to membrane	unknown
	NM_016981	20544	Slc9a1	basolateral plasma membrane;extr	transport
	NM_015819	50786	Hs6st2	extracellular space	ecm
	AK004657	74111			unknown
	NM_016875	53422	Ybx2	cytoplasm	translation
	AK013309	170707	Usp31		protein degradation
	NM_021380	58181	Il20	extracellular space	immune response
	NM_023805	76257	Slc38a3	integral to plasma membrane	transport
	AK004563				unknown
	NM_028564	73534			unknown
	AK020727	77754			misc
	AK015972	75137		cytoplasm	unknown
	AK004913	74158			unknown
	NM_025561				unknown
	NM_026418	67865	Rgs10		signaling
	NM_016800	53612	Vti1b	Golgi apparatus;integral to memb	traffic
	AK019514	78104			unknown
	NM_031180	83379		integral to membrane	metabolism
	AK005887	69354	Slc38a4	integral to membrane	transport
	NM_013615	18286	Odf2	myosin	ctsk
	AK007653	52443	D4Ertd786e	ribosome	translation
	AK006009	75553			unknown
	AK019938	321015			unknown
	AK016916	109242	Kif24	mitochondrion	misc
	NM_008902	19011	Pp11r	extracellular space	cell adh
	NM_008756	18260	Ocln	integral to membrane;tight junct	cell adh
	AK002441	66039	D14Ertd449e		unknown
	AK019176	93687	Csnk1a1		signaling
	BC017636	110796	Sdccag33		transcription
	BC002230	217827	BC002230	intracellular	unknown
	NM_031201	22122	Tsta3	extrachromosomal circular DNA	metabolism
	NM_009420	22024	Crisp2	extracellular space	unknown
	NM_009086	20017	Rpo1-2	DNA-directed RNA polymerase I co	transcription
	AK007777	83490	Pik3ap1	cytoplasm;nucleus;plasma membran	signaling
	NM_010599	16499	Kcnab3	cytoplasm;integral to plasma mem	ion channel
	NM_021332	14652	Glp1r	extracellular space;integral to	signaling (receptor)
	NM_007429	11609	Agr2	integral to plasma membrane	signaling (receptor)
	M12289	17885	Myh8	myosin;striated muscle thick fil	ctsk
	NM_008317	15586	Hyal1		metabolism
	AK017530	70502			unknown
	AK002360	64697	Keg1	mitochondrion	unknown

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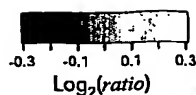
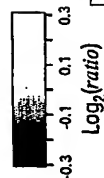


Figure 13

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_019662	56437	Rrad	membrane	signaling
	AK004939	71753	Trprss6	Integral to membrane;plasma memb	protein degradation
	NM_031182	83383	Tfap4	membrane	transcription
	NM_026177	67467			unknown
	NM_013589	16997	Ltbp2	extracellular matrix	ecm
	AK009180	67484		Integral to membrane;intracellul	misc
	BC005518	76867		extracellular space;Integral to	unknown
	NM_011936	26383	Fto		unknown
	NM_008958	19207	Ptch2	Integral to membrane	signaling (receptor)
	NM_030684	94094	Trim34	cytoplasm	unknown
	AK012971	74201		cytoplasm	signaling ?
	AK002842	68386			unknown
	NM_017462	18975	Polg	gamma DNA polymerase complex	cell cycle
	AK005167	76686			unknown
	NM_009779	12267	C3ar1	Integral to membrane	immune response
	NM_008663	17921	Myo7a	myosin	ctsk
	BC003284	73828	Wdr21	heterotrimeric G-protein complex	signaling
	AK017550	59032		membrane	cell cycle ?
	AK020090	68176			transcription
	AK005431	67009		kinesin complex	unknown
	NM_008877	18815	Plg	extracellular space	apoptosis
	AK005063	110351	Rap1ga1		signaling
	AF158744	67310	Prllpc2	extracellular space	growth factor (secreted)
	X13721	15416	Hoxb8	transcription factor complex	transcription
	NM_009680	11774	Ap3b1	Golgi trans face	transport
	NM_007628	12427	Ccna1	cytosol;nucleus	cell cycle
	NM_008249	15278	Tfb2m	extracellular space;nucleolus	transcription
	NM_029292	75453			unknown
	NM_019435	104130	Np15	Integral to membrane;mitochondri	unknown
	AK003549	68499	Mrpl53		translation
	AK013927	73099			unknown
	NM_008126	14620	Gjb3	connexon complex;Integral to mem	signaling (receptor)
	AK019531	78902			unknown
	BC004759	171095	Il17rc	Integral to plasma membrane	immune response (receptor)
	NM_008372	16197	Il7r	extracellular space;Integral to	immune response (receptor)
	NM_028494	73297			unknown
	AK004342	66478			unknown
	NM_026260	67590		cytoplasm;extracellular space	unknown
	NM_019432	170706	Pr1	Integral to membrane	ion channel
	L34676	11784	Apba2		signaling
	NM_026183	67473		Integral to membrane	unknown
	NM_008222	15159	Hccs	mitochondrion	metabolism

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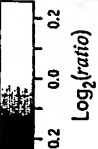
Figure 14



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
AK018560	67556	Ptgm		metabolism ?
AK007485	69053			unknown
NM_027205	69761		peroxisome	transport ?
BC018468	66753			unknown
AK015642	75036			misc (secreted)
NM_009983	13033	Ctsd	extracellular space;lysosome	protein degradation
NM_008060	14376	G2an	alpha-glucosidase complex;endopl	metabolism
D13903	19266	Ptprd	integral to membrane;plasma memb	signaling (receptor)
AK003420	68567	Cgrefl	extracellular space	cell cycle ?
NM_018819	55951	Btp44l		unknown
AF326960	21380	Tbx1	microtubule;nucleus	transcription
BC002298	19283	Ptprz1	extracellular matrix;extracellular	signaling (receptor)
AK021033	77219		cytoplasm	metabolism ?
AK013856	23938	Map2k5	extracellular	signaling
NM_010471	15444	Hpca		unknown
AK014285	76965			unknown
NM_016717	50880	Scly	mitochondrial inner membrane	metabolism
NM_013638	19120	Ptm3	nucleosome;nucleus	cell cycle
AK013924	12301	Cacybp	cytoplasm;nucleus	unknown
NM_009427	22057	Tob1	cytoplasm;extracellular	signaling
NM_007399	11487	Adam10	extracellular matrix;extracellular	protein degradation
AK020653	78558		extracellular	signaling
AK004655	74107			translation
AK003256	74320			misc
NM_023596	71279	Slc29a3	integral to membrane	transport
NM_019409	18377	Omg	extracellular space;integral to	signaling
AK020700	77763			ckk
AK005205	67129			unknown
NM_021547	59045	Stard3	integral to membrane;late endoso	metabolism
BC004635	102607	Srx19		unknown
NM_025386	66153	Fbxo36		transcription ?
AK017138	74471			unknown
NM_016910	53892	Ppm1d	protein serine-threonine phospho	signaling
AK013267	72747		integral to membrane	unknown

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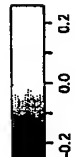
Figure 15



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_009852	12511	Cd6	extracellular space;integral to	cell adh (receptor)
AK003642	68618		lysosome	metabolism ?
AF228925	72088	Ush1c	cilium	signaling
NM_024199	67337	Cstf1	miRNA cleavage stimulating factor	transcription
AK012842	72686			unknown
NM_008167	14804	Grid2	integral to membrane;synaptosome	ion channel
NM_019458	54624		nucleosome	unknown
NM_016658	14430	Galt	cytoplasm	metabolism
NM_024474	140709	Col26a1	Golgi apparatus;endoplasmic ret	ecm
AK003651	14000	Etoh2		translation
AB023957	170773	AB023957		unknown
NM_025561				unknown
NM_025419	66202		cytoplasm	unknown
AK019481	68260			unknown
NM_009047	19700	Rem	membrane	signaling
BC003842	97112	C87860	extracellular	transport
BC005598	98221	Ga17	signalosome complex	protein degradation
NM_016859	53414	Bys1	cytoplasm	cell adh
AK007327	66144	Atp6v1f	hydrogen-transporting ATPase V1	metabolism
NM_013614	18263	Odc	mitochondrial inner membrane	misc
AK005852	71838	Phf7		unknown
AK005479	52076	D4Erd89e	nucleosome;nucleus	misc
NM_030558	80733	Car15		metabolism
NM_013559	15505	Hsp105	cytoplasm	translation
NM_023133	20085	Rps19	cytosolic ribosome (sensu Eukary	translation
NM_021385	58186	Rad18	nucleus	cell cycle
NM_023633	71952		cytosol	unknown
NM_021472	58809	Rnase4		misc
NM_008742	18205	Ntf3	extracellular space	signaling (secreted)
NM_011838	23936	Lynx1	extracellular space;integral to	Signaling (receptor)
NM_011791	23808	Ash2l		transcription
AK013800	73053			unknown
NM_007930	13803	Enc1	cytoskeleton	ctsk
AK014487	257635	Sds1		metabolism

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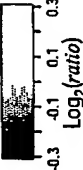
Figure 16



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_022011	23894	Gt2h2	transcription factor TFIIB compl	transcription
AK004632	74105	Gga2		traffic
NM_013762	27367	Rpl3	nucleolus;ribosome	translation
NM_008128	14623	Gjb6	connexon complex;integral to mem	signaling
AK005267	68953		non-muscle myosin	tumor related
AF375046	93762	Smarca5	nucleus	misc
AK014891	14479	Usp15		protein degradation
NM_053075	19744	Rheb	spliceosome complex	signaling
NM_008642	17777	Mtp	endoplasmic reticulum	traffic
NM_008066	14395	Gabra2	integral to plasma membrane	signaling (receptor)
AK003605	74770		integral to membrane	unknown
NM_023526	69721		extracellular space;membrane	signaling
NM_010826	17540	Mrv1	endoplasmic reticulum membrane;j	transport
NM_016696	14733	Gpc1	extracellular matrix;extracellul	signaling (receptor)
AF332067	75425			metabolism
NM_020612	57358	Cmar		cell adh
AK011781	72482	Acbd6	ribosome	signaling
S67967	16976	Lipap1	extracellular space	tumor related
NM_009482	22286	Urf1	transcription factor complex	transcription
NM_019990	56018	Stard10		tumor related
NM_011219				unknown
AK003880	68647			unknown
NM_008172	14814	Grin2d	extracellular space;integral to	signaling (receptor)
NM_008158	14761	Gpr27	extracellular space;integral to	signaling
NM_013759	27361	Sepr		metabolism

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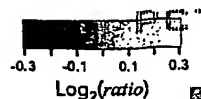
Figure 17 A



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_019990	56018	Stard10		tumor related
AK015063	75773			unknown
BC011482	23943	Mbc2	Integral to membrane	unknown
BC004012	192185	BC004012	cytosol;extrachromosomal;circula	metabolism
AK017808	70652		Integral to membrane	transport?
NM_030696	80879	Slc15a3	Integral to membrane	transport
NM_018788	54616	Ext3	endoplasmic reticulum;Integral t	signaling
NM_023790	75659		endoplasmic reticulum	protein degradation
NM_007761	12909	Crep		signaling (receptor)
AK006023	75540	Fpgt		misc
NM_021555	59053	Brp16		unknown
NM_008078	14417	Gad2	extrachromosomal;circula;DNA	metabolism
NM_021458	14365	Fzd3	extracellular space;Integral to	signaling (receptor)
NM_021414	74340			unknown
NM_026556	68097		dynein complex	csk
NM_009964	12955	Cryab	cytoplasm	misc
S82853	21915	Dymk		metabolism
AK009487	67863	Slc25a11	Inner membrane;Integral to membr	traffic
NM_011109	18782	Pla2g2d	extracellular space	metabolism
NM_011955	26425	Nubp1	mitochondrion;nucleus	metabolism
NM_009614	11490	Adam15	extracellular matrix;extracellul	protein degradation
X81365	21367	Cnm2	axon	cell adh
BC012878	77034			transcription
U70033	20541	Slc8a1	Integral to plasma membrane	transport
NM_023377	170460	Stard5		transport
NM_008020	14227	Fkbp2	endoplasmic reticulum;extracellu	translation
AK019590	78154			unknown
AK016374	75879			unknown
AK013948	69269	Scnm1		transcription
NM_053204	11173	Rab6ip2	non-muscle myosin	signaling
NM_008167	14804	Gria2	Integral to membrane;synapsome	ion channel
AK016480				unknown

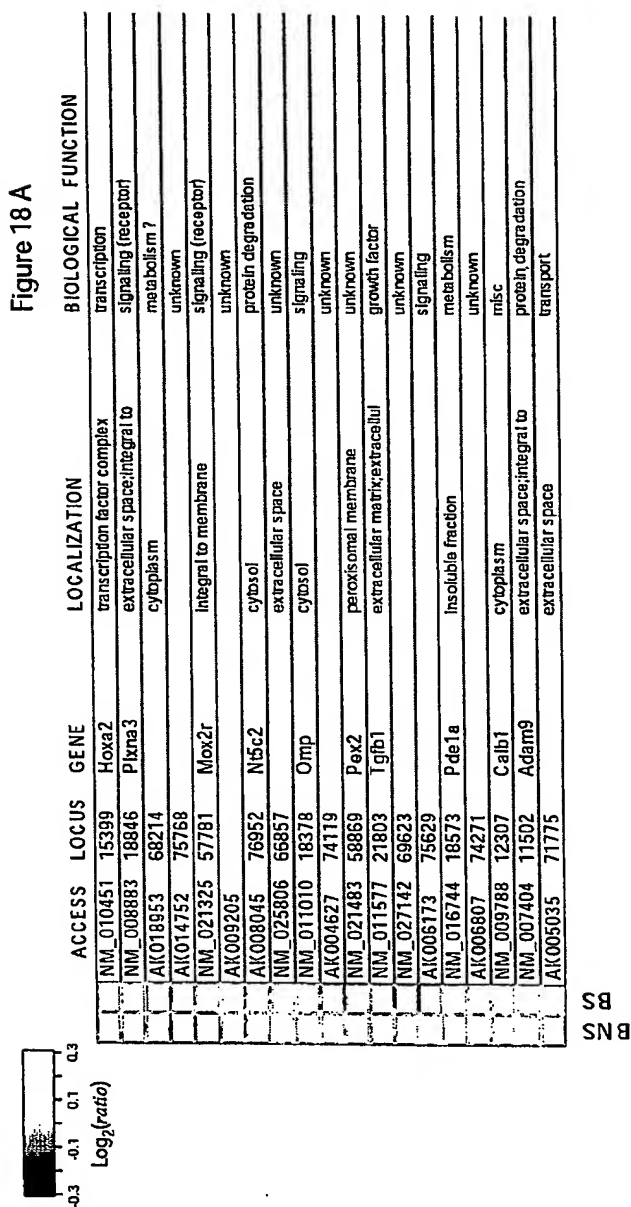
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Figure 17 B



	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	AK012503	72563			unknown
	NM_018801	54525	Syt7	Integral to membrane;lysosome;sy	transport
	NM_009352	21749	Terf1	chromosome-, telomeric region;nu	cell cycle
	NM_019697	16508	Kcnd2	extracellular space;voltage-gate	ion channel
	BC003975	30853	Mif2	nucleus	tumor related
	AK017249	11842	Arf3	Golgi apparatus	transport
	NM_019948	56619	Clec3f9	Integral to plasma membrane	signaling (receptor)
	AK013245	72748		spliceosome complex	transcription
	NM_008676	17966	Nbr1	cytosol	unknown
	NM_026348	67733		cytoplasm	signaling
	AK008415	67495			unknown
	NM_009166	20411	Sorbs1	stress fiber	ctsk
	AK011184	67039		cytoskeleton	unknown
	U85993	319845		extracellular space	unknown
	AK009450	71904		Integral to membrane	unknown
	U43892	11306	Abcb7	inner membrane;Integral to plasm	transport
	NM_025730	66725		cytoplasm	unknown
	NM_009503	269523	Vcp	Golgi apparatus;endoplasmic reti	transport
	AK016247	18640	Pfkfb2	cytosol	metabolism
	NM_026304	67669			unknown
	NM_008288	15483	Hsd11b1	microsome	metabolism
	BC017615	94249	Slc24a3	Integral to membrane;plasma memb	transport
	NM_019410	18645	Pfn2	actin cytoskeleton	ctsk
	AK003794	97541	Qars		translation
	NM_010946	18203	Ntan1	cytoplasm;nucleus	misc
	AK019481	68260			unknown
	AF220355	56747	Alb43918		unknown
	NM_013614	18263	Odc	mitochondrial inner membrane	misc
	NM_009883	12608	Cebpb	cytoplasm;nucleus	apoptosis
	AK018551	107022		Integral to membrane	unknown
	NM_011929	26372	Cttnb6	Integral to plasma membrane	ion channel
	AK020859	68146			unknown
	NM_016737	20867	Stip1	Golgi apparatus;nucleus	misc
	NM_008983	19272	Ptpkr	extracellular space;Integral to	signaling (receptor)
	AK020099	68180			unknown
	NM_008161	14778	Gpx3	extracellular space	metabolism
	NM_007702	12683	Cidea	cytosol;mitochondrial membrane	apoptosis
	AK020410	52120	D8E rtd354e	Integral to membrane	unknown
	NM_011787	23802	Amfr	Integral to endoplasmic reticuli	protein degradation ?
	AK005033	52432	Ppp2r2d	protein phosphatase type 2A comp	signaling
	AF279458	19386	Ranbp2	cytoplasm	metabolism
	AK016267	65103	Arl6ip6	Integral to membrane	unknown
	AK014235	73192	Xpot	nucleus	traffic
	NM_011802	270166	C1px	mitochondrion	transport
	AK010466	76484			unknown
	NM_007525	12021	Bard1	cytoplasm;nucleus	transcription
	AK008080	76526		spliceosome complex	transcription
	BC003247	229725	Mcl1		transport
	AK003866	28295	D10Jhu81e	cell wall;extracellular space;mi	unknown
	AF060088	26440	Psma1	membrane;proteasome core complex	protein degradation
	AK020868	68073			unknown
	AK020780	77929			traffic ?
	AK009497	69568	Vkorc111		metabolism
	AF071173	15204	Herc2		protein degradation
	NM_019571	56224	Tm4sf9	Integral to membrane	cell adh
	AK014134	73172		extrachromosomal circular DNA	unknown
	NM_025274	13915	Dppa5	cytoskeleton	misc
	NM_019638	56449	Csda	perinuclear space	transcription
	NM_008591	17295	Mat	extracellular space;integral to	signaling (receptor)
	AK014948	66719			unknown
	NM_009671	11736	Ankfy1		transcription
	AK005944	76920	Arrdc5		unknown
	AF320615				unknown

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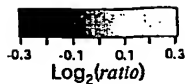


Figure 18 B

	ACCESS.	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_008971	19230	Ptk9	actin cytoskeleton	ctsk
	NM_008300	15525	Hspa4	cytoplasm	translation
	NM_011341	20318	Sdf4	Golgi apparatus;extracellular sp	misc
	NM_008946	19175	Psmb6	proteasome core complex (sensu E	protein degradation
	D29797	20908	Stx3	Integral to membrane	transport
	NM_009377	21823	Th	ornithine carbamoyltransferase c	metabolism
	NM_009729	11984	Atp6v0c	hydrogen-translocating V-type AT	transport
	NM_007917	13684	Eif4e	cytoplasm	translation
	NM_007761	12909	Crcp		signaling (receptor)
	AK013595	72871			unknown
	NM_026580	68149			protein degradation
	NM_010727	16924	Lrx1	cytoplasm;extracellular space	signaling
	AK018159	18549	Pcsk2	Golgi apparatus;extracellular sp	translation
	AK004506	68942			unknown
	NM_026434	67889		viral nucleocapsid	unknown
	NM_011990	26570	Slc7a11	Integral to membrane	transport
	NM_008903	19012	Ppap2a	Integral to plasma membrane;memb	metabolism
	NM_025962	67096		membrane	unknown
	NM_007731	12817	Col13a1	collagen type XIII	ecm
	NM_009819	12386	Catna2	cytoskeleton	cell adh
	NM_023305	67123	Ubap1	26S proteasome	protein degradation
	NM_008235	15205	Hes1	transcription factor complex	transcription
	BC015273	110157	Raf1	cytosol;plasma membrane	signaling
	AK003278	52466	D11Ert18e	Integral to membrane	transport
	NM_030717	80907	Lactb	extracellular space;integral to	misc
	NM_010769	17180	Matn1	extracellular matrix;extracellul	ecm
	BC015253	11688	Alox15b		immune response
	AK010382	243983		actin cytoskeleton;integral to m	transcription
	BC003451	232087	Mat2a	cytoplasm	metabolism
	NM_011917	24128	Xm2	nucleus	transcription
	AK013309	170707	Usp31		protein degradation
	AK013166	67607			unknown
	AK003542	73728		mitochondrial inner membrane	unknown
	AK017484	67023		mitochondrial matrix	transcription
	NM_025779	66815		Integral to membrane	unknown
	AK016786	71804		ribosome	unknown
	NM_011626	21982	Tpar1	extracellular space;integral to	unknown
	NM_009421	22029	Traf1	cytoplasm	signaling
	AC079832	286947	Adh6b	cytosol ?	metabolism ?
	AK021152	77643			unknown
	BC016073	68916			unknown
	NM_025808	66863	Lztr1		transcription
	NM_025566	66443			unknown
	NM_022418	64295		extracellular space;integral to	unknown
	NM_008974	19244	Ptp4a2	soluble fraction	signaling
	NM_007508	11964	Atp6v1a1	Integral to plasma membrane;prot	metabolism
	NM_011018	18412	Sqstm1	cytosol	protein degradation
	NM_008617	17448	Mdh2	mitochondrial matrix	metabolism
	NM_007699	12672	Chrm4	Integral to plasma membrane	signaling (receptor)
	NM_013867	29815	Bcar3	actin filament	signaling (GEF)
	BC017130	224938	Pja2		unknown
	AK008333	70257		mitochondrion	unknown
	NM_010250	14394	Gabra1	extracellular space;integral to	signaling

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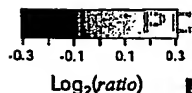
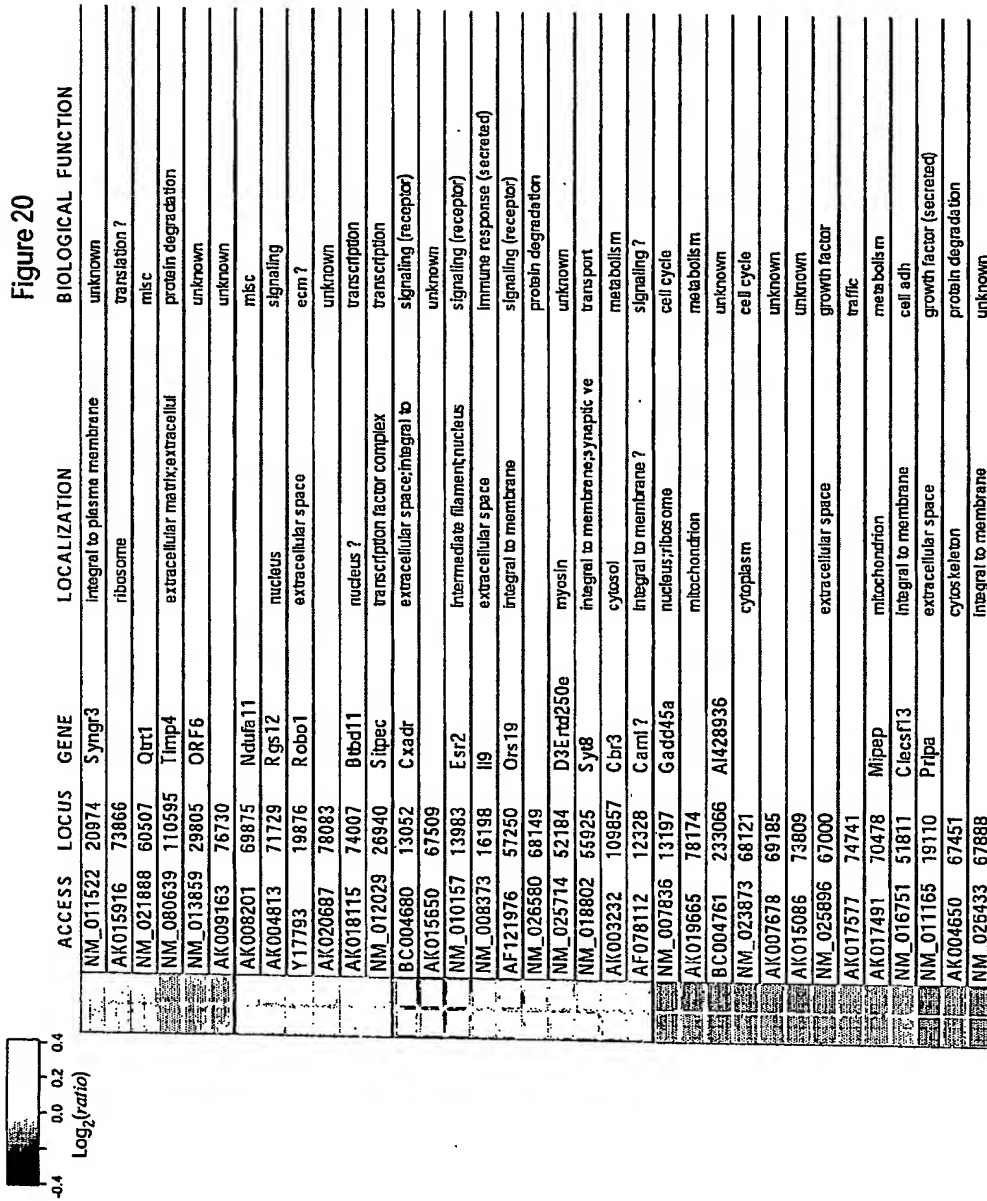


Figure 19

ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_010991	18348	Olf49	integral to plasma membrane	signaling (receptor)
NM_010595	16485	Kcna1	voltage-gated potassium channel	transport
NM_025708	66690			unknown
AK013948	69269	Scnm1		transcription
NM_023721	73834	Atp6v1d	hydrogen-transporting ATPase V1	Transport
AK012159	72542		extracellular space	metabolism
NM_010412	15184	Hdac5	cytoplasm;histone deacetylase co	cell cycle
NM_008585	17287	Mep1a	extracellular space;integral to	protein degradation (secreted)
NM_011917	24128	Xm2	nucleus	transcription
NM_007889	13544	Dvl3	cytoplasm	signaling
NM_010661	268482	Krt1-12	intermediate filament	ctsk
NM_009634	11564	Adsl	ribosome	metabolism
AK011747	17237	Mgrn1	extracellular	apoptosis
NM_023217	66522		cytoplasm	metabolism ?
NM_011049	18555	Pctk1	cytoplasm	misc
AK007822	107747	Fthfd		metabolism
AK003819	74777			misc
AF100956		a lot		unknown
AK005588	69317		chromatin;nucleus	transcription
AK020471	12631	Cn1	cytoskeleton;nucleus	ctsk
NM_009128	20250	Scd2	endoplasmic reticulum;integral t	metabolism
NM_008707	18107	Nmt1	cytoplasm	misc
AK016685	74443		endoplasmic reticulum	metabolism
AK014142	67287			unknown
NM_011585	21841	Tla1	lysosome;nucleus	apoptosis
AK011881	67148		microtubule	ctsk
AK002704	68365	Rab14		signaling
NM_026670	68310		integral to membrane	unknown
NM_013892	30052	Pcsk1n	Golgi trans face;extracellular s	misc
NM_007427	11604	Agrp	extracellular space	signaling (secreted)
AK005887	69354	Slc38a4	integral to membrane	transport
NM_011623	21973	Top2a	condensed chromosome;metaphase c	cell cycle
NM_019768	56397	Morf4l2	chromatin;nucleus	transcription
NM_010377	107970	Hist1h1t	nucleosome;nucleus	cell cycle
AK016475	70981			unknown
AK020837	77799	Slc2	cytoplasmic vesicle;late endosom	signaling
NM_054046	23854	DefB	extracellular	signaling
NM_008401	16409	Itgam	cytoskeleton;external side of pl	cell adh (receptor)
NM_053074	18226	Nup62	nuclear pore	transport
NM_010278	14581	Gfi1	transcription factor complex	transcription
NM_013932	30959	Ddx25		translation
NM_053204	111173	Rab6lp2	non-muscle myosin	signaling
AB055154	108138	Xrcc4	extracellular;nucleus	cell cycle
NM_010242	14345	Fut4	Golgi apparatus;integral to memb	translation
AF411834	20620	Snk	phosphorylase kinase complex	cell cycle
NM_009748	12068	Bet1	Golgi membrane;endoplasmic retic	transport
AK009343	71907	Serpina9	extracellular space	protein degradation
NM_009147	20334	Sec23a	Golgi membrane;endoplasmic retic	traffic
NM_009314	21337	Tacr2	integral to membrane;plasma memb	signaling (receptor)
NM_025323	66055		nucleus	transcription
NM_009873	12571	Cdk6	cytoplasm	cell cycle
NM_025520	68373	Lsm5		transcription
NM_009213	20598	Smpd2	integral to membrane	lipid metabolism
NM_025714	52184	D3E rtd250e	myosin	unknown
NM_008890	18948	Pnmt		metabolism
NM_023876	77766	Eip4	extracellular	unknown
AK019600	78795		transcription factor TFIID compl	unknown
NM_011962	26433	Plod3	endoplasmic reticulum;extracellu	metabolism
NM_009278	20823	Ssb	nucleus;viral nucleocapsid	transcription
AK004757	71728		cytoplasm	signaling
AF177211	140795	Gpr105	integral to membrane	signaling (receptor)
AK016509	71003		extracellular space	protein degradation
AK016282	75863			unknown
AK016517	75725			unknown

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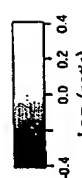
Figure 20



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_011522	20874	Syngp3	integral to plasma membrane	unknown
AK015916	73866		ribosome	translation ?
NM_021888	60507	Qrr1		misc
NM_080639	110595	Timp4	extracellular matrix; extracellular	protein degradation
NM_013659	29805	ORF6		unknown
AK009163	76730			unknown
AK008201	69875	Ndufa11		misc
AK004813	71729	Rgs12	nucleus	signaling
Y17193	19876	Robo1	extracellular space	ecm ?
AK020687	78083			unknown
AK018115	74007	Btd11	nucleus ?	transcription
NM_012029	26940	Sitpc	transcription factor complex	transcription
BC004680	13052	Cxadr	extracellular space; integral to	signaling (receptor)
AK015650	67509			unknown
NM_010157	13983	Esr2	intermediate filament; nucleus	signaling (receptor)
NM_008373	16198	Ig	extracellular space	immune response (secreted)
AF121976	57250	Ors19	integral to membrane	signaling (receptor)
NM_026580	68149			protein degradation
NM_025714	52184	D3Ert250e	myosin	unknown
NM_018802	55925	Sy8	integral to membrane; synaptic ve	transport
AK003232	109857	Cbr3	cytosol	metabolism
AF078112	12328	Cam1 ?	integral to membrane ?	signaling ?
NM_007836	13197	Gadd45a	nucleus; ribosome	cell cycle
AK019665	78174		mitochondrion	metabolism
BC004761	233066	AI428936		unknown
NM_023873	68121		cytoplasm	cell cycle
AK007678	69185			unknown
AK015086	73809			unknown
NM_025896	67000		extracellular space	growth factor
AK017577	74741			traffic
AK017491	70478	Mipep	mitochondrion	metabolism
NM_016751	51811	Clecsf13	integral to membrane	cell adh
NM_011165	19110	Prlpa	extracellular space	growth factor (secreted)
AK004650	67451		cytoskeleton	protein degradation
NM_026433	67888		integral to membrane	unknown

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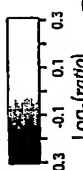
Figure 21



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_033652	110648	Lmx1a	nucleus	transcription
NM_007900	13605	Ect2	cytoplasmic vesicle	signaling (receptor)
NM_025383	56147		membrane	unknown
NM_021527	59030	Mkks	chaperonin-containing T-complex	translation
AK021023	78688	Nol3	nucleus	apoptosis
AK002637	66689	Btd5	actin cytoskeleton	ctsk 1
BC005774				unknown
AK008338	69894		integral to membrane	unknown
NM_009440	22127	Tsx		unknown
NM_007863	13384	Mpp3	integral to plasma membrane	signaling
NM_030262	80284			unknown
NM_019914	56772			unknown
NM_018872	56030	D1Bwg0491e	cytoplasm;integral to membrane	unknown
NM_008453	16599	Klf3	transcription factor complex	transcription
NM_013865	29812	Ndr3	cytoplasm	misc
NM_011946	26405	Map3k2	cytoplasm	signaling (MAP K)
AK010202	69968		Golgi apparatus	unknown
NM_053204	111173	Rab6ip2	non-muscle myosin	signaling
NM_011909	24110	Usp18	26S proteasome	protein degradation
AK005139	68262	Agpat4	integral to membrane	lipid metabolism
NM_013718	27096	Trappc3	Golgi apparatus;endoplasmic reti	transport
AF408435	233406	Prc1	spindle	cell cycle
L34676	11784	Apba2		signaling
AK018132	74008		lysosome	signaling
AK017528	69227			unknown
NM_008121	14613	Gja5	connexon complex;integral to mem	signaling
NM_007833	13179	Dcn	extracellular matrix;extracellul	Signaling (receptor)
NM_019808	56376		Z disc	ctsk
AK013727	14397	Gabra4	integral to plasma membrane	signaling
NM_009746	12055	Bcl7c	extra chromosomal circular DNA	tumor related
NM_021898	60600	Halapx	cytoplasm;nucleus	cell cycle
AK012624	72621		plasma membrane	signaling
NM_025457	66268			unknown
NM_026645	68265		cytoplasm	misc
NM_026526	68043		ribulose biphosphate carboxylas	unknown
NM_007948	13870	Erec1	nucleotide excision repair compl	cell cycle
AK015452	75796	Cdyl2	chromatin;nucleus	misc
AK004009	54151	Cyhr1	cytoplasm	misc

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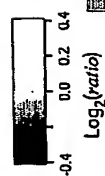
Figure 22



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_009282	20842	Stag1	nucleus	cell cycle
AK003287	66264			unknown
AK006533	69519	Rvdd2		unknown
NM_029636	104002	Ctsq		protein degradation
NM_026510	68017			unknown
NM_026015	67178		nucleus	unknown
NM_025658	66607	Ms4a4d	integral to membrane	immune response
AB041576	58242	Nudt11		unknown
AK008574	67939		membrane	trans port ?
NM_024255	72479		mitochondrion	meta bolism
NM_007686	12630	Cfi	extracellular space,membrane	immune res ports e
X98848	18639	Prkfb1		meta bolism
NM_020508	57258	Xpo4	RAN-binding protein,nucleus	traffic
NM_025282	17260	Mer2c	mediator complex	transcription
NM_013844	24135	Zfp68	transcription factor complex	transcription
NM_019929	20610	Sm3h1		cell cycle
BC004764	56690	Mlycd	mitochondrion,peroxisome	meta bolism
NM_011893	24055	Sh3bp2	cytoplasm	signaling
NM_021505	59008	Anapc5		cell cycle
NM_007633	12447	Ccne1	nuclear cyclin-dependent protein	cell cycle
AK012097	72155			unknown
NM_027910	71765	Klnkc3	endosome;nuclear chromatin	unknown
AK016520	71745	Cul2	nuclear ubiquitin ligase complex	tumor related - apoptosis - cell cycle
NM_013641	19216	Ptger1	integral to membrane	signaling
AK006273	69441			unknown
NM_007733	12823	Col19a1	collagen;extracellular space	ecm

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Figure 23 A



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_025594	66492		ribosome	unknown
NM_023788	75625		plasma membrane	apoptosis
NM_019831	56364	Zfp261	integral to membrane	unknown
NM_026908	69008			unknown
NM_008442	16563	Kif2a	kinesin complex	csk
NM_012047	26992	Brd7	cytoplasm	transcription
AK014029	73068	Fut11	extracellular space; membrane	translocation
NM_026312	67683		cytoplasm	unknown
AK007546	110052	Dek	nucleus	transcription
AK009375	52685	D11Erd736e	integral to membrane	unknown
AF213381	27406	Abcf3	integral to plasma membrane	transport
NM_019679	57778	Fnnl	cytosol	csk

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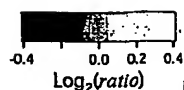


Figure 23 B

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	BC005741	233835	Tnrc6	extracellular	misc
	NM_019509				unknown
	AB047921	67210		nucleus	transcription ?
	D86949	18845	Plxna2	extracellular space;integral to	signaling
	AJ288061	76707	Clasp1	cytoplasmic microtubule;microtub	ctsk
	NM_009864	12550	Cdh1	cell-cell adherens junction;extr	cell adh
	BC004626	72722		membrane	misc
	NM_021452	58802	Kcnmb4	integral to plasma membrane	ion channel
	AK019885	77521		non-muscle myosin	signaling
	NM_019835	56274	Stk3	cytoplasm;protein kinase CK2 com	apoptosis
	AK019434	28040	D6Wsu163e		unknown
	AK007999	69815		extracellular space;integral to	unknown
	AK002416	68350		Integral to membrane;lateral pla	transport ?
	NM_008078	14417	Gad2	extrachromosomal circular DNA	metabolism
	AK017149	75964			unknown
	NM_021560	59058	Bhlhb5	transcription factor complex	transcription
	NM_018812	228615	Plas3	nucleus	transcription
	NM_025855	52665	Echdc1	mitochondrion	unknown
	AK020702	78428			unknown
	NM_033327	94187	Ebfaz	transcription factor complex	transcription
	NM_018764	54216	Pcdh7	extracellular space;integral to	cell adh
	AK018327	76206		Integral to membrane	unknown
	AK005069	71767			protein degradation ?
	NM_013638	19120	Prm3	nucleosome;nucleus	cell cycle
	NM_011500	268980	S trn	cytoplasm	transcription
	AK016466	70965			signaling
	NM_027019	69287	Odf3	extracellular space;outer dense	signaling (secreted)
	BC004768				unknown
	AK013464	67515		protein serine-threonine phospho	signaling (osmosis response)
	AK006014	69428			unknown
	NM_019551	56196	Ttrap	cytoplasm	signaling
	AK006617	73284	Ddit4l	membrane	immune response ?
	NM_022995	65112		Integral to membrane	misc
	NM_031261	83457	Fthl17	ferritin complex	misc
	NM_009748	12068	Bet1	Golgi membrane;endoplasmic retic	transport
	BC004766	71799	Pted1	ribosome	unknown
	AF105217	57813	Tk2	mitochondrion	metabolism
	AK004943	66627		endoplasmic reticulum	unknown
	NM_026413	67854	Slco6b1	Integral to membrane	transport
	X74504	27883	D16H22S680E	chromatin	unknown
	NM_009390	21892	Tll	extracellular space	protein degradation (secreted)
	NM_007614	12387	Catnb	adherens junction;basolateral pl	cell adh
	NM_025315	108098	Surb7	DNA-directed RNA polymerase II-	transcription
	NM_022331	64209	Herpud1	endoplasmic reticulum membrane;l	signaling ?
	BC003235	71665	Fuca	lysosome	metabolism
	AK018594	68145			misc
	AK005015	246277	Csad		metabolism
	NM_011156	19072	Prep	cytoplasm;nucleus	protein degradation
	AK009362	99650			unknown
	NM_018872	56030	D18wg0491e	cytoplasm;integral to membrane	unknown
	NM_030684	94094	Trim34	cytoplasm	unknown
	AJ006215	12764	Cmas	cytoplasm;nucleus	metabolism
	NM_008839	18706	Pik3ca	phosphoinositide 3-kinase comple	apoptosis

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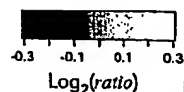


Figure 24

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_007863	13384	Mpp3	Integral to plasma membrane	signaling
	AK014582	70807	Arrdc2		unknown
	NM_025994	27984	D4Wsu27e		unknown
	AK016374	75879			unknown
	NM_011801	23837	Cfdp	basement membrane;integral to me	apoptosis
	AK005888	69324			unknown
	BC004604	104318	Csnk1d	cytoplasm	signaling
	NM_008707	18107	Nmt1	cytoplasm	misc
	NM_007627	12426	Cckbr	Integral to membrane	signaling (receptor)
	NM_013569	16511	Kcnh2	membrane fraction;voltage-gated	ion channel
	NM_007458	11771	Ap2a1	AP-2 adaptor complex;clathrin co	transport
	NM_008841	18709	Pik3r2	phosphoinositide 3-kinase comple	signaling
	AF133300	259102	Olf630		signaling (receptor)
	AB056100	66902	Mtap		misc
	AB039178				unknown
	NM_016813	53319	Nxf1	nuclear pore	transport
	NM_025706	66687	Tbc1d15	extrachromosomal circular DNA	unknown
	NM_026217	67526	Apg12l	cytoplasm	protein degradation
	NM_011857	23965	Odz3	Integral to plasma membrane	unknown
	AK007831	68115			unknown
	AK015402	74862			unknown
	NM_023649	72088	Ush1c	cilium	protein degradation
	NM_019512	56070	Tcerg1	nuclear matrix	transcription
	AK016000	56428	Mtch2	membrane	Transport
	AK007097	14051	Eya4	cytoplasm	metabolism
	NM_010765	17165	Mapkapk5	calcium-calmodulin-dependent pro	signaling
	AK013003	67610		membrane	transport
	NM_022995	65112		Integral to membrane	misc
	NM_013617	18366	Olf65	Integral to plasma membrane	signaling (receptor)
	AK016865	71164	Zdhc20		unknown
	AK017531	73998	Herc3		unknown
	NM_053190	94226	E dg8	Integral to membrane;plasma memb	signaling (receptor)
	AK014863	70853			unknown
	NM_019443	54405	Ndufa1	extracellular space;mitochondrio	metabolism
	NM_009131	20256	Scgf	extracellular space	signaling (secreted)
	AK006889	73410			unknown
	AK008988	70285			translation
	NM_008171	14812	Grin2b	extracellular space;integral to	Signaling (receptor)
	AK009957	69692			unknown
	NM_033561	22384	Wbscr1	cytosol	translation
	NM_009437	22117	Tst	mitochondrial matrix	metabolism
	NM_011104	18754	Prkce	cytoskeleton	signaling
	NM_008731	18167	Npy2r	Integral to plasma membrane	signaling (body weight)
	AK020702	78428			unknown
	AK003223	68563	Dpm3	endoplasmic reticulum;Integral t	metabolism
	NM_029716	108699	Chn1	cytoplasm	signaling
	NM_026235	67557		nucleus;viral nucleocapsid	unknown
	NM_022813	24044	Scamp2	Integral to membrane;membrane fr	transport
	NM_009171	20425	Shmt1	cytosol	metabolism
	NM_021531	59035	Carm1	viral nucleocapsid	transcription
	AK019147	19084	Prkar1a	cAMP-dependent protein kinase co	misc
	NM_021446	58520	ORF11	Integral to membrane	unknown
	AK004703	71733	Susd2	extracellular space;integral to	cell adh
	AK016990	74481		nucleus	transcription
	NM_018887	56050	Cyp39a1	endoplasmic reticulum;membrane;m	metabolism

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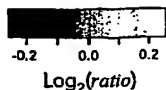


Figure 25

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_023893				unknown
	AF100956		a lot		unknown
	NM_010321	14711	Gnmt	endoplasmic reticulum	translation
	NM_022992	65106	Arl8ip5	Integral to membrane	transport
	NM_007682	12616	Cenpb	chromosome-, pericentric region;	misc
	AK003511	73724	Mcee	extracellular space;mitochondrio	unknown
	NM_022022	63958	Ube4b	cytoplasm;ubiquitin ligase compl	protein degradation
	M69293	15902	Idb2	cytoplasm;transcription factor c	immune response
	NM_026437	67894		extracellular	unknown
	NM_013481	12181	Bop1	extrachromosomal circular DNA	transcription
	NM_011936	26383	Fto		unknown
	NM_008129	14630	Gclm		misc
	AK005311	66871	Cpne8	membrane	misc
	AK013604	72880			unknown
	NM_008142	14688	Gnb1	heterotrimeric G-protein complex	signaling
	NM_029203	75199		transcription factor complex	transcription
	NM_022882	64898	Lpin2	nucleus	unknown
	NM_021401	58210	Sectm1	Integral to plasma membrane	immune response
	AK016247	18640	Pfkfb2	cytosol	metabolism
	NM_013826	17434	Mocs2		misc
	NM_009624	11515	Adcy9	Integral to plasma membrane	misc
	AK010898	72320			unknown
	BC002306	245841	Polr2h	DNA-directed RNA polymerase I co	transcription
	AK019803	78217			unknown
	NM_019639	22190	Ubc	nucleus	protein degradation
	AK019985	77521		non-muscle myosin	signaling
	NM_018776	54394	Crlf3	membrane	signaling (receptor)
	AK014408	74315			tumor related
	NM_023336	67382	Brd3	Integral to membrane;nucleus	signaling ?
	AK005740	74215			protein degradation
	AK006539	27660			unknown
	NM_026616	68209		ribosome	unknown
	NM_009237	20675	Sox3	transcription factor complex	transcription
	AK017761	70619			unknown
	NM_013584	16880	Lifr	extracellular space;Integral to	signaling (receptor)
	BC013471	77056		Integral to membrane	lipid metabolism ?
	AK009886	71923			unknown
	NM_011601	21893	Tlm	extracellular;Integral to membra	tumor related
	AK007994	72042	Cod1	cytoskeleton	ctsk
	AK008761	74257	Fbxo23	Integral to membrane	unknown
	AF285590	73679	Tex19		unknown
	NM_031156	15925	Ide	extracellular space;peroxisome;s	protein degradation
	NM_008443	16568	Kif3a	kinesin complex	ctsk
	AK005989	71853	Txndc7	endoplasmic reticulum;extracellu	metabolism
	NM_019657	56348	Hsd17b12	Integral to membrane;microsome	metabolism
	L38281	16365	Irg1		unknown
	BC013800	67063			unknown
	NM_025529	66387	Nudt8	mitochondrion	unknown
	AB047323				unknown
	NM_020558	57316	C1d	transcriptional repressor comple	transcription
	AK015921	75209	Sv2c	synaptic vesicle	misc
	NM_008852	18742	Ptfr3	transcription factor complex	transcription
	NM_007637	12465	Cct5	chaperonin-containing T-complex	translation
	NM_013666	225742	Slat8e	Golgi apparatus;Integral to memb	translation
	NM_009155	20363	Sepp1	extracellular space	misc

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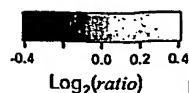


Figure 26

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_016849	54131	Irf3	cytoplasm;nucleus	transcription
	NM_008082	14427	Galr1	integral to membrane;plasma memb	signaling (receptor)
	NM_008129	14630	Gclm		misc
	AK017270	237943			unknown
	AK012969	74200		ribulose biphosphate carboxylas	unknown
	NM_013895	30055	Timm9	mitochondrial inner membrane pre	transport
	AK011544	66254			transcription
	NM_008923	19085	Prkar1b	cAMP-dependent protein kinase co	signaling
	AK016397	66362			transcription
	NM_023153	66070		membrane	unknown
	NM_007638	12468	Cct7	cytoplasm	translation
	NM_008855	18751	Prkcb		signaling
	BC002307	27878	D1Ert251e		transcription
	NM_008885	18858	Pmp22	extracellular space;integral to	cell cycle
	AK008803	72281	Sh2d4a		signaling ?
	NM_021537	59041	Stk25		signaling
	AK003653	68644	Dorz1	extracellular space	metabolism
	NM_033269	12671	Chrm3	integral to plasma membrane	signaling (receptor)
	NM_016757	22377	Wbp1	integral to membrane	unknown
	NM_009861	12540	Cdc42	filopodium	signaling
	NM_025748	66757	Deadc1	mitochondrion	misc
	AK002297	71667			unknown
	NM_020583				unknown
	AK007130	73582			unknown
	NM_026253	67580		cytoplasm	unknown
	NM_021550	59048		integral to membrane	unknown
	NM_019572	56233	Hdac7a	cytoplasm;histone deacetylase co	transcription
	NM_009632	11546	Adprt2	nucleus;telomere	misc
	AK006145	75642		integral to membrane	unknown
	AK005166	76500			signaling
	AK006807	74271			unknown
	NM_030716	80906	Kcni2	plasma membrane	ion channel
	AK016622	74438			unknown
	AK014709	74585	4833416I09Rik		unknown
	AK013202	20467	Sn3b	nucleus	transcription
	NM_019686	56506		synaptic vesicle	signaling
	NM_025747	66756			unknown
	NM_011597	21873	Tjp2	nucleus;tight junction	cell adh
	NM_021453	58803		extracellular space;soluble frac	protein degradation (secreted)
	NM_009781	12288	Cacna1c	T-tubule;voltage-gated calcium c	ion channel
	AK011832	72465	Zfp131		transport
	NM_028075	72049	Tnfrsf13c	integral to membrane	signaling (receptor)
	AK013280	67229		spliceosome complex	transcription
	NM_019550	56195	Ptbp2	spliceosome complex	transcription
	AK003818	66248	Alg5	endoplasmic reticulum;integral t	metabolism
	AK006263	54613	Siat10	Golgi apparatus;membrane	misc
	NM_053161	94064	Mrpl27	mitochondrial large ribosomal su	translation
	AK005160	72014		extracellular space	unknown
	AK013175	28027	D4Wsu132e		unknown
	NM_026612	68198	Ndufb2	mitochondrion	transport
	AK007552	56036	Ccnl2		cell cycle
	NM_025937	67050		integral to endoplasmic reticulu	unknown
	NM_007889	13544	Dvl3	cytoplasm	signaling
	AF104414	16798	Lats1		signaling ?
	NM_029417	75757			unknown
	AK002744	68375	Ndufa8	respiratory chain complex I (sen	metabolism
	BC002178	93747	Echs1	mitochondrion	metabolism
	NM_016798	53318	Pdlm3	Z disc;actin cytoskeleton	ctsk
	NM_008040	14290	Fpr-rs3	integral to membrane	signaling (receptor)
	NM_013859	29805	ORF6		unknown
	BC012407	110695	Aldh7a1		metabolism

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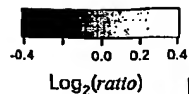
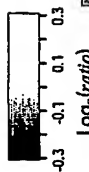


Figure 27

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_022321	64099	Parvg	cytoskeleton	cell adh
	AK009960	69697			unknown
	NM_021531	59035	Carm1	viral nucleocapsid	transcription
	AK018599	22353	Vlp	extracellular space	signaling (secreted)
	NM_026175	67465	Sf3a1	spliceosome complex	transcription
	AK019538	78092		integral to membrane	unknown
	X84014	16774	Lama3	basal lamina;mitochondrial inner	cell adh
	AK009365	76437	D11Bwg0414e		unknown
	NM_011543	21402	Skp1a	SCF ubiquitin ligase complex;nuc	translation
	AK007452	69082			signaling
	AK012711	69226	Srx24	cytoplasm	transport
	AK003808	224250		integral to membrane	unknown
	NM_013736	27224	Tceb3	nucleus	transcription
	NM_011288	19935	Mrpl23	mitochondrial large ribosomal su	translation
	AK015106	106039	Gga1	Golgi stack	transport
	AK003337	68490			unknown
	AF061934	50782	Rgs11	heterotrimeric G-protein complex	signaling
	AK017628	70556		mitochondrial inner membrane	transport
	AK004012	68708		early endosome	tumor related
	AK019590	78154			unknown
	AK014623	66701			unknown
	NM_026183	67473		Integral to membrane	unknown
	NM_013684	21374	Tbp	RNA polymerase I transcription f	transcription
	NM_053107	93690	Gpr45	Integral to membrane	signaling (receptor)
	AK012292	72561			immune response
	AK003623	74772		Integral to membrane	transport
	AK017309	71382	Pex1		transport
	NM_016753	17035	Lxn	Integral to membrane	misc
	AK020352	78242		extracellular	protein degradation?
	AK021301	78578			unknown
	NM_008502	16897	Llgh	cytoskeleton	ctsk
	AB052945	109904	Mcf2	cytosol	signaling (GEF)
	AK021396	78550			unknown
	NM_016754	17907	Mylpf	muscle myosin	ctsk
	AK014993	70961			unknown
	NM_010264	14536	Nr6a1	transcription factor complex	transcription
	NM_009262	20745	Spock1	extracellular matrix;extracellul	ecm
	NM_008809	18596	Pdgfrb	extracellular space;integral to	signaling (receptor)
	AK010555	69746			unknown
	AF267660	18604	Pdk2	mitochondrion	metabolism
	NM_021346	57908	Zfp318	membrane;nucleus	ctsk
	AK016873	71192			signaling?
	AK018222	76161		Integral to membrane	unknown
	NM_026174	67464	Lysal1	Integral to Golgi membrane;lys os	metabolism
	AK019621	78786			Transcription
	NM_015762	50493	Txnrd1	cytosol	transport
	BC004653	67155		nucleoplasm	transcription
	AK014178	56738	Mocs1		unknown
	AK005519	67701		extracellular space	protein degradation
	NM_019928	56640	Klk4	extracellular space	protein degradation
	NM_008845	18718	Pip5k2a	cytoplasm	lipid metabolism
	NM_016807	53378	Sdcbp	adherens junction;cytoskeleton;l	signaling
	AK019434	28040	D6Wsu163a		unknown
	NM_025512	66361		cytoplasm	unknown
	AK011231	72068	Cnot2	membrane	transcription

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Figure 28



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_026402	67841		inner plaque of spindle pole bod	unknown
AK010786	73710		membrane/microtubule	ctsk
NM_021460	16889	Lip1	extracellular space/lysosome	lipid metabolism
AK006800	74270	Usp20		protein degradation
NM_025998	67149		extracellular space/integral to	unknown
NM_008011	14186	Fgfr4	extracellular space/integral to	unknown
NM_025529	66387	Nudt8	mitochondrion	unknown
NM_019743	56353	Rybp	nucleoplasm	transcription
AK015007	77048		cytoskeleton	transport
NM_020560	57312	Mtpps31	mitochondrion/nucleus	transcription
NM_019942	56526	sep-06	septin ring	ctsk
NM_018773	54353	Scap2	cytoplasm	signaling
NM_011883	24017	Rnf13	nucleus	protein degradation
AK018362	71468	Obox1	nucleus	misc
NM_019640	56305	Pipmb	cytoplasm	transport
AK006283	69435		inner plaque of spindle pole bod	ctsk
NM_026304	67669			unknown
NM_009920	12794	Cnrl	extracellular space/integral to	signaling
AF193606	20658	Son	nucleus	unknown
NM_025457	66268			unknown
AK017256	71326	Trem1	cell surface/integral to membrane	signaling (receptor)
U22015	20184	Rxrip110		signaling (receptor)
BC004600	75221	Dpp3	cytoplasm	protein degradation
NM_010133	13798	En1	transcription factor complex	transcription
AF062567	20687	Sp3	transcription factor complex	transcription
BC005755	70465			transcription
AK009205				unknown
BC014769	73166	Tm7sf2	integral to membrane	unknown
AK017095	71240	Osbpl7		metabolism
NM_030265	80334	Kcnip4	plasma membrane	signaling ?
AK002481	74090			unknown
NM_008360	16173	Il18	extracellular	immune response

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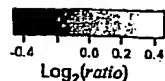


Figure 29

Accession	Gene	Localization	Biological Function	
NM_023805	76257	Slc38a3	Integral to plasma membrane	transport
NM_011244	19411	Rarg	extrachromosomal circular DNA;nu	signaling (receptor)
L20343	12296	Cacnb2	voltage-gated calcium channel co	ion channel
NM_011971	26446	Psmb3	proteasome core complex (sensu E	protein degradation
AK021336	77994			unknown
NM_018882	14766	Gpr56	extracellular space;Integral to	signaling (receptor)
NM_016910	53892	Ppm1d	protein serine-threonine phospho	signaling
AK016704	74434		extracellular	cell cycle ?
NM_007703	12686	Elovl3	endoplasmic reticulum;Integral t	lipid metabolism
NM_018826	54352	Irx5	nucleus	transcription
AK003154	68420			unknown
NM_019802	56316	Ggcx	Integral to membrane	misc
NM_008821	18630	Pet2	extrachromosomal circular DNA	transcription
NM_019925	56696	Gpr132	Integral to plasma membrane	signaling (receptor)
NM_020025	26878	B3gal2	Golgi apparatus;Integral to memb	translation
NM_016766	51812	Mers1	nucleus	cell cycle
AK021023	78688	Nol3	nucleus	apoptosis
NM_010431	15251	Hif1a	flagellum (sensu Eukarya);transc	angiogenesis
AK010552	66984			unknown
AK018027	277250			unknown
AK019168	68991		membrane	unknown
NM_008538	17118	Marcks	membrane	signaling
AK003735	52840	D2Bwg0891e		unknown
NM_026338	67722		actin cytoskeleton	ctsk ?
NM_020518	57276		Integral to plasma membrane	Immune response (receptor)
BC002193	110279	Bcr		unknown
NM_011444	20678	Sox5	transcription factor complex	transcription
AK007077	73572			unknown
NM_010309	14683	Gnas	Golgi trans cisterna;membrane fr	signaling
AB042402	14695	Gnb3	heterotrimeric G-protein complex	misc
NM_008030	14262	Fmo3	extracellular space;Integral to	traffic
NM_009983	13033	Ctsd	extracellular space;lysosome	protein degradation
AY007717	70603	Mutyh	extrachromosomal circular DNA	misc
NM_013465	11625	Ahs9	extracellular space	protein degradation (secreted)
BC003335	106344	Rfc4	DNA replication factor C complex	cell cycle
NM_007542	12111	Bgn	extracellular matrix;extracellul	ecm
AK012475	330203			unknown
AK010038	269587	Epb4.1	actin cytoskeleton	ctsk
BC004098	192287		mitochondrial inner membrane	transport
AK017214	71323			tumor related
NM_009035	19664	Rbpsuh	cytoplasm;nucleus	Immune response
AK013604	72880			unknown
AK019479				unknown
NM_009063	19737	Rgs5		signaling
AK020831	77794			unknown
NM_009895	12700	Cish	cytoplasm;plasma membrane	signaling
AK009344	76948			unknown
NM_030735	81010	V3R9	Integral to membrane	signaling (receptor)
AK002465	71675			unknown
AK007519	69090	Ascc1	transcription factor complex	transcription
NM_024471	79464	Lias	mitochondrion	misc
NM_023420	68018	Col4a3bp		ECM
NM_021449	58799	AF229032	mitochondrion	unknown
AK015988	75146			unknown
AK009436	67345		voltage-gated potassium channel	unknown
AK018541	71564			unknown
NM_025594	66492		ribosome	unknown
L32178	232333	Slc6a1	Integral to plasma membrane	transport
NM_008285	15465	Hrh1	Integral to membrane	signaling (receptor)
NM_008683	18002	Nedd8	nucleus;ribosome	protein degradation
NM_007527	12028	Bax	Integral to membrane;mitochondri	apoptosis
D50366	16579	Kifap3	kinesin II complex	ctsk
NM_011793	23825	Banfl	Integral to membrane;nucleus	misc
NM_007701	12677	Chx10	transcription factor complex	transcription

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BS-192

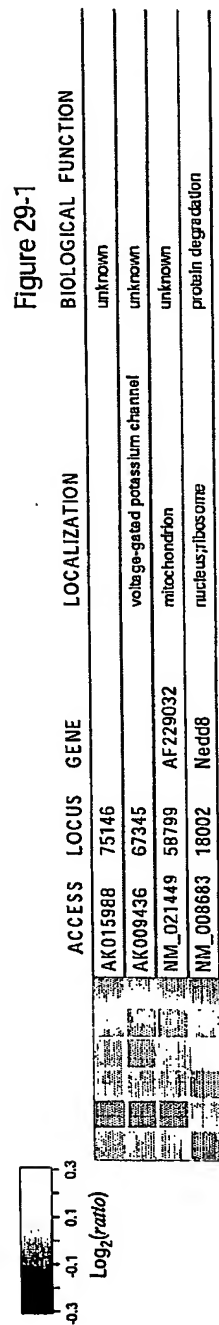
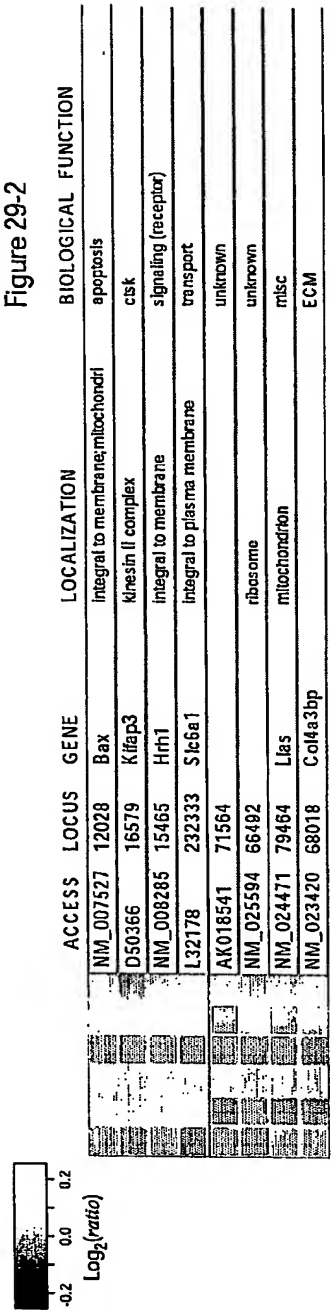
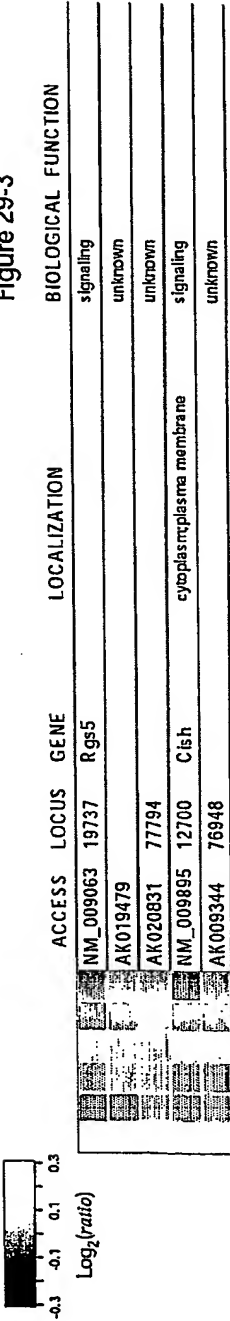


Figure 29-2



BNS-18
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BS-192

Figure 29-3



BNS-18
BNS-72
BNS-192
BS-18
BS-72
BS-192

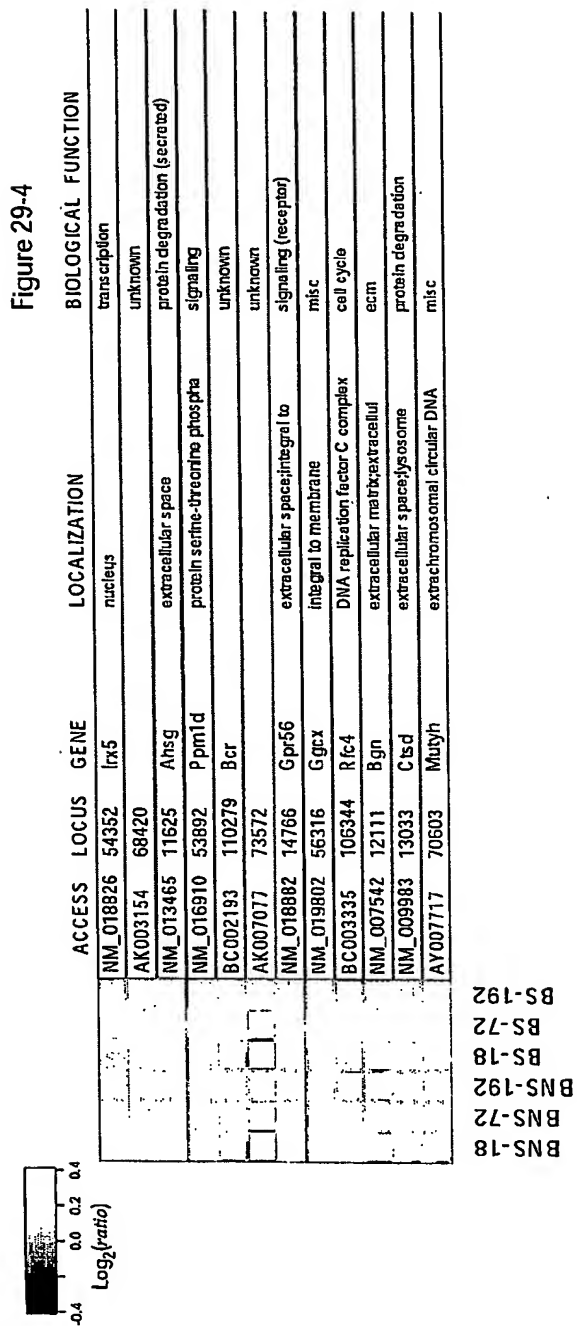
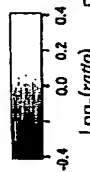


Figure 29-5



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
AK019168	68991		membrane	unknown
AK003735	52840	D28wg0891e		unknown
NM_008538	17118	Marcks	membrane	signaling
NM_026338	67722		actin cytoskeleton	cisk?
NM_023805	76257	Slc38a3	integral to plasma membrane	transport
NM_011244	19411	Rarg	extrachromosomal circular DNA; nu	signaling (receptor)
NM_011971	26446	Psmb3	proteasome core complex (sensu E	protein degradation
AK021336	77994			unknown
NM_010309	14683	Gnas	Golgi trans cisternae; membrane fr	signaling
NM_008030	14262	Fmo3	extracellular space; integral to	traffic
AB042402	14695	Gnb3	heterotrimeric G-protein complex	misc
NM_011444	20678	Sox5	transcription factor complex	transcription
NM_020518	57276		integral to plasma membrane	immune response (receptor)
AK007077	73572			unknown

BS-192
BS-72
BS-18
BNS-192
BNS-72
BNS-18

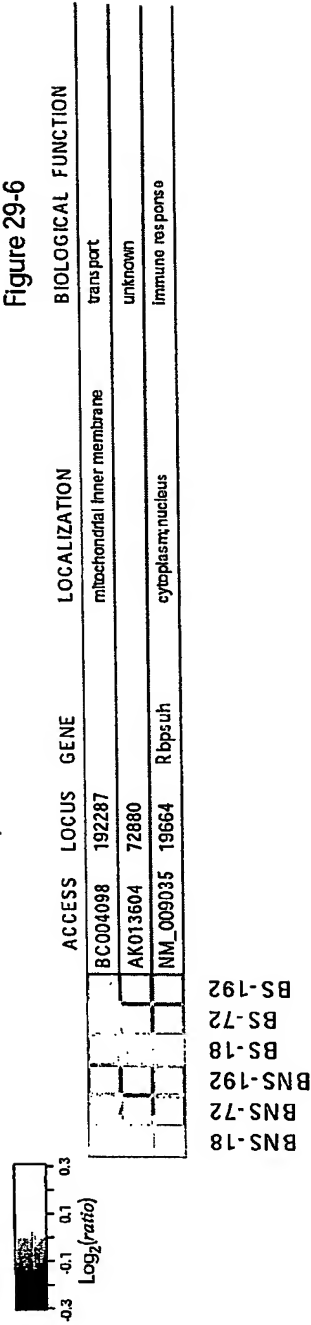
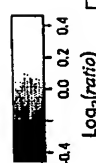


Figure 30 A



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_007863	13384	Mpp3	integral to plasma membrane	signaling
AF162781	16332	Inpp1		signaling
NM_016871	53333	Tomm40	integral to membrane;mitochondrion	traffic
NM_011176	19143	Stt4	extracellular;extrinsic to plasma	cell adhesion
BC013716	15499	Hsf1	cytoplasm;nucleus	transcription
AK003586	231712			unknown
NM_007966	14028	Evt1	transcription factor complex	transcription
NM_023422	68024	Hist1h2bc	nucleosome;nucleus	misc
NM_026413	67854	Slc6b1	integral to membrane	transport
AK011354	67041	Oxct	extracellular space;mitochondrion	metabolism
AK012054	72519		eukaryotic translation initiation	unknown
NM_011638	22042	Trfr	endosome;integral to membrane;plasma	signaling
AK003826	68530			unknown
NM_008492	16832	Ldh2	cytosol	metabolism
AK005386	72008		endosome	transport
NM_021890	60527	Fads3	integral to plasma membrane	metabolism
AF327857	232288			unknown
NM_015776	50530	Miap5	extracellular space;microfibril	ecm
AK019863	77634			translation
AF411608	76273	Ndfip2	integral to membrane	unknown
AK018731	68193	Rpl24		translation
NM_030248	80280	Cdk5rap3		cell cycle
AK003794	97541	Qars		translation
AK002407	110826	Etfb	electron transfer flavoprotein c	transport
NM_025577	65462			unknown
NM_008939	19142	Prss12	extracellular space;membrane	protein degradation
AK017769	70614			unknown
NM_010181	14119	Fbn2	extracellular space;microfibril	signaling
NM_008095	14467	Gbas	extracellular space;mitochondrion	unknown
NM_053076	20168	Rtn3	endoplasmic reticulum;extracellular	unknown
BC003237	98985	Al462438	nucleus	transcription
NM_026069	67281	Rpl37	cytosolic large ribosomal subunit	translation
NM_008857	18759	Prkcl	plasma membrane	signaling
BC005744	72144	Slc37a3	extracellular space;integral to membrane	transport
NM_026267	67602			unknown

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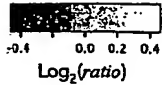
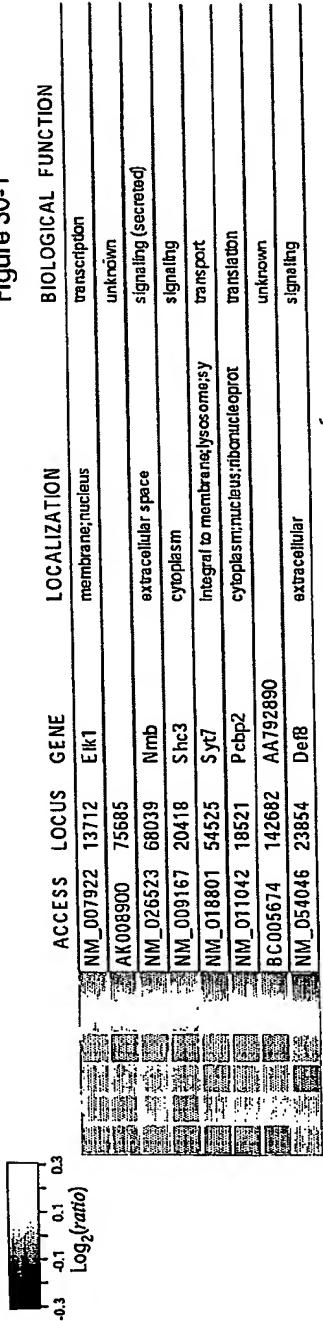


Figure 30 B

ACCESSION	ECODS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_029460	75835		membrane	signaling
AK010113	70281			unknown
NM_009478	22275	Urod	chloroplast	misc
NM_008947	19179	Psmc1	proteasome complex (sensu Eukary	protein degradation
AK019948	78095			unknown
NM_023505	69367	Glx2	mitochondrion;nucleus	transport
NM_026513				unknown
NM_009186	20462	Silg41		misc
NM_008825	18640	Pfkfb2	cytosol	metabolism
NM_009854	12516	Cd7	extracellular space;integral to	immune response (receptor)
AK013837	73090			unknown
NM_009441	22129	Ttc3	transcriptional repressor comple	transcription ?
NM_007462	11789	Apc	cytoplasm;nucleus	tumor related (suppressor)
NM_010064	13427	Dncl2	cytoplasmic dynein complex	ctsk
NM_020031	56612	Pfdn5	prefoldin complex	translation
AK004975	71770	Ap2b1	clathrin adaptor complex;coated	transport
NM_053178	94180			metabolism ?
AK016563	51885	D2Ert435e		ctsk
AF343752	77053	Unc84a	cytoplasm;integral to membrane;n	unknown
NM_016750	51788	H2afz	nucleosome;nucleus	cell cycle
BC005788	71994	Cnn3	cytoskeleton	ctsk ?
NM_030719	80909	Gats		unknown
NM_011838	23936	Lynx1	extracellular space;integral to	Signaling (receptor)
NM_018801	54525	Syt7	integral to membrane;lysosome;sy	transport
NM_010234	14281	Fos	cytoplasm;transcription factor c	tumor related
NM_054046	23854	Def8	extracellular	signaling
NM_011042	18521	Pcbp2	cytoplasm;nucleus;ribonucleoprot	translation
NM_011018	18412	Sqstm1	cytosol	protein degradation
BC005674	142682	AA792890		unknown
J05277	15275	Hk1	cytosol;membrane;mitochondrion	metabolism
AK008493	72098		cytosol;integral to membrane	metabolism
NM_009320	21366	Slc6a6	integral to plasma membrane	transport
NM_013918	30940	Usp25	26S proteasome;proteasome comple	protein degradation
AK019147	19084	Prkar1a	cAMP-dependent protein kinase co	misc
NM_019509				unknown
BC003457	108645		extrachromosomal circular DNA	misc
NM_024244	71721		membrane	unknown
NM_018798	54609	Ubqln2	endoplasmic reticulum membrane	unknown
AK005132	72003	Synpr	extracellular space;integral to	transport
NM_023868	20191	Ryr2	integral to plasma membrane	ion channel
NM_007922	13712	Elk1	membrane;nucleus	transcription
AK008900	75685			unknown
NM_026523	88039	Nmb	extracellular space	signaling (secreted)
NM_009167	20418	Shc3	cytoplasm	signaling
NM_008596	17306	Mg29	integral to membrane;synaptic ve	unknown
BC004064	20682	Sox9	transcription factor complex	unknown
AK016572	74411		integral to membrane	unknown
NM_023500	22439	Xkh	extracellular space;integral to	transport
NM_011942	26394	Lypla2	mitochondrion	misc
NM_016698	50849	Rnf10		transcription
NM_019771	56431	Dstn	actin cytoskeleton	cell cycle
AK007933	72282			unknown
NM_007950	13874	Ereg	extracellular space;integral to	cell cycle
NM_020494	27225	Ddx24	cytoplasm	cell cycle
NM_011529	21353	Tank	cytoplasm	signaling
AK012553	77015			unknown
AK003287	68264			unknown
BC004062	234959	Crsp6		transcription
AK003282	68496			unknown
AK010511	11652	Akt2	intracellular;protein kinase CK2	cell cycle
AK003132	75406	Ndufs7	extracellular space;mitochondrio	metabolism
NM_007871	13430	Dnm2	coated pit	ctsk
AK003609	76308		Golgi apparatus;endoplasmic ret	signaling


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Figure 30-1



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Figure 30-2



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_011529	21353	Tank	cytoplasm	signaling
AK008493	72098		cytosol;integral to membrane	metabolism
J05277	15275	Hk1	cytosol;membrane;mitochondrion	metabolism
NM_009441	22129	Ttc3	transcriptional repressor complex	transcription ?
NM_013918	30940	Usp25	26S proteasome;proteasome complex	protein degradation
NM_024244	71721		membrane	unknown
NM_009320	21366	Slc6a6	integral to plasma membrane	transport
AK019147	19084	Prkar1a	cAMP-dependent protein kinase co	misc
NM_007462	11789	Apc	cytoplasm;nucleus	tumor related (suppressor)
AK005132	72003	Synpr	extracellular space;integral to	transport
NM_023868	20191	Ryr2	integral to plasma membrane	ion channel
NM_018798	54609	Ubqln2	endoplasmic reticulum membrane	unknown
NM_010234	14281	Fos	cytoplasm;transcription factor c	tumor related
AK016572	74411		integral to membrane	unknown
AK007933	72282			unknown
NM_020494	27225	Ddx24	cytoplasm	cell cycle
NM_008596	17306	Mg29	integral to membrane;synaptic ve	unknown
NM_019771	56431	Dstin	actin cytoskeleton	cell cycle
NM_007950	13874	Ereg	extracellular space;integral to	cell cycle
NM_007871	13430	Drnm2	coated pit	ctsk
AK003609	76308		Golgi apparatus;endoplasmic ret	signaling
AK003287	66264			unknown
AK012553	77015			unknown
AK003282	66496			unknown

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Figure 30-3

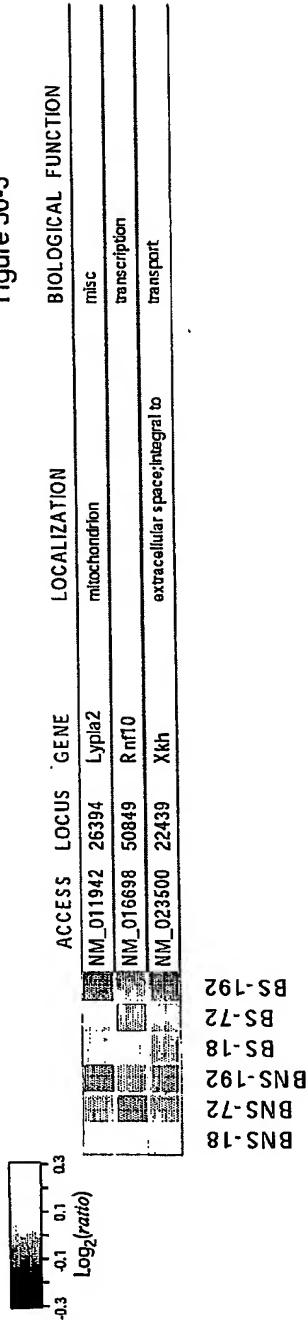
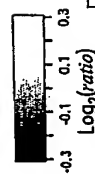


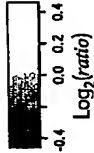
Figure 30-4



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
AK018731	68193	Rpl24		translation
NM_023422	68024	HistH2bc	nucleosome;nucleus	misc
NM_026413	67854	Slco6b1	integral to membrane	transport
AK011354	67041	Oxct	extra cellular space;mitochondrio	metabolism
BC013716	15499	Hsfl	cytoplasm;nucleus	transcription
AK003586	231712			unknown
NM_007986	14028	Evs1	transcription factor complex	transcription
AF162781	16332	Inpp1		signaling
AK012054	72519		eukaryotic translation initiation	unknown
NM_011176	19143	Std4	extra cellular;extrinsic to plasm	cell adh
NM_007863	13384	Mpp3	integral to plasma membrane	signaling
AF327857	232288			unknown
NM_011638	22042	Trfr	endosome;integral to membrane;pl	signaling
AK003826	68530			unknown

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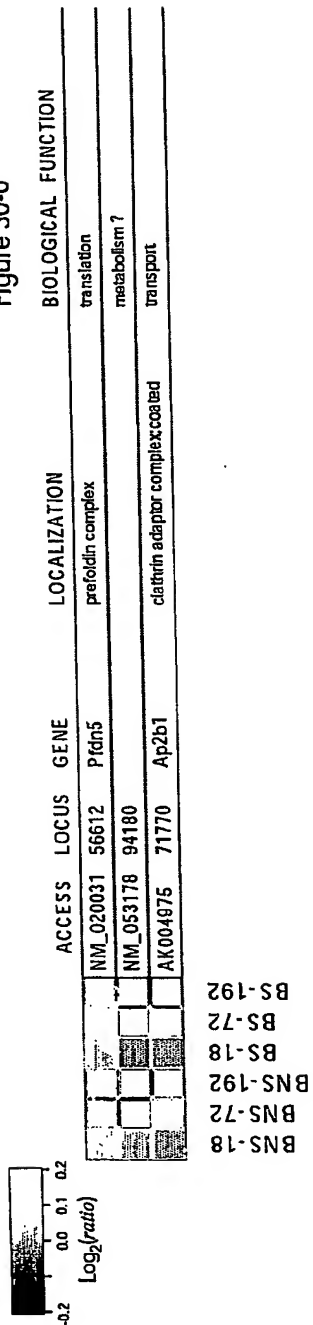
Figure 30-5



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_009478	22275	Urod	chloroplast	misc
NM_010181	14119	Fbn2	extracellular space;microfibril	signaling
BC003237	98985	AH62438	nucleus	transcription
NM_053076	20168	Rtn3	endoplasmic reticulum;extracellular	unknown
NM_023505	69367	Glx2	mitochondrion;nucleus	transport
NM_026267	67602		membrane	unknown
NM_029460	75835		membrane	signaling
NM_008095	14467	Gbas	extracellular space;mitochondrion	unknown
NM_021890	60527	Fads3	integral to plasma membrane	metabolism
NM_026069	67281	Rpl37	cytosolic large ribosomal subunit	translation
NM_015776	50530	Mlap5	extracellular space;microfibril	ecm
NM_026413	67854	Sico6b1	integral to membrane	transport
AK011354	67041	Oxct	extracellular space;mitochondrion	metabolism

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Figure 30-6



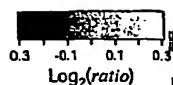


Figure 31 A

ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_023202	66416	Ndufa7	membrane fraction;respiratory ch	metabolism
AK013269	72759		integral to membrane	unknown
NM_025865	66952			unknown
AB039178				unknown
AK003826	68530			unknown
NM_008405	16415	Itgb2l	extracellular matrix;extracellul	cell adh
AK007368	69082			unknown
NM_008708	18108	Nmt2	cytoplasm	misc
NM_009092	20068	Rps17	cytosolic small ribosomal subuni	translation
NM_008997	19326	Rab11b	Golgi apparatus	traffic
NM_015806	50772	Mapk6	nucleosome	signaling
NM_008707	18107	Nmt1	cytoplasm	misc
NM_025319	66050		Golgi apparatus;endoplasmic ret	unknown
NM_008770	18417	Cldn11	Integral to plasma membrane;ligh	cell adh
NM_025383	66147		membrane	unknown
AK016162				unknown
AK014338	74840	Armet	extracellular space	tumor related
L34676	11784	Apba2		signaling
AK014623	66701			unknown
AK018680	66251	Arfgap3	cytosol;perinuclear space	traffic
NM_011293	20022	Polr2j	DNA-directed RNA polymerase II-	transcription
NM_009717	11922	Neurod6	nucleus	transcription
AK009213	75573			unknown
NM_008903	19012	Ppap2a	Integral to plasma membrane;memb	metabolism
AK006273	69441			unknown
AK010874	69834			unknown
AK009460	66053	Ppil2	nucleus	translation
AF162224	30924	Angpt3	extracellular space	signaling
NM_010160	14007	Cugbp2	cytoplasm;nucleus	transcription
AK017929	76007	Zfp198	nucleus	transcription
NM_011673	22234	Ugcg	endoplasmic reticulum;extracellu	lipid metabolism
AK012109	72194			unknown
NM_013556	15452	Hprt	cytoplasm	metabolism
NM_009148	20336	Sec8	exocyst	transport
AK012326	52323	D5Ert363e	actin cytoskeleton	Transport
AK019605	78799			immune response
NM_007567	12217	Bsn	cytoskeleton;Integral to membran	signaling
AK020441	77272			unknown
AK007485	69053			unknown
NM_026402	67841		inner plaque of spindle pole bod	unknown
NM_013835	20822	Ssa2	ribonucleoprotein complex;viral	misc
BC018329	70380		Integral to membrane	unknown
NM_026095	67332	Snrpd3	ribonucleoprotein complex;viral	misc
AK014763	75769		Integral to membrane	unknown
AK002276	71668		Integral to membrane	unknown
NM_021550	59048		Integral to membrane	unknown
NM_013596	17203	Mc5r	Integral to membrane	signaling
NM_054069	114895	Psbpc1	extracellular space	signaling (secreted)
NM_026092	67328		extracellular space	metabolism
NM_011360	20392	Sgce	cytoskeleton;extracellular space	cell adh
NM_012038	26950	Vsnl1		signaling ?
AK010430	69210	Ddah1		misc
U51279	12048	Bcl2l	Integral to membrane;mitochondri	apoptosis
NM_015803	50769	Atp8a2	Integral to membrane	transport
NM_009417	22018	Tpo	Integral to membrane	metabolism
NM_019725	21886	Tle2	nucleus	transcription
NM_008424	16509	Kcne1	Integral to plasma membrane	ion channel
AF083876	13731	Emp2	Integral to membrane	transport
AK012240	66399		mitochondrion	translation
AK009134	75572	Acyp2	extrachromosomal circular DNA	metabolism
NM_009476	22269	Upk2	endoplasmic reticulum;extracellu	tumor related
BC004680	13052	Cxadr	extracellular space;Integral to	signaling (receptor)

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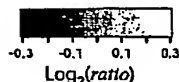
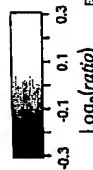


Figure 31 B

ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
AK012283	72569			unknown
NM_009293	20905	Sts	extracellular space;integral to	misc
AK021330	77996			unknown
NM_008300	15525	Hspa4	cytoplasm	translation
NM_026415	67859		cytoplasm	metabolism ?
NM_009072	19878	Rock2	actin cytoskeleton	signaling
NM_008098	14489	Mtpn		transcription
NM_009688	11798	Birc4	cytosol	apoptosis
S82853	21915	Dtyrk		metabolism
NM_031391	83602	Gtf2a1	transcription factor TFIIA compl	transcription
NM_053115	93732	Acox2	peroxisome	metabolism
AB041610	97484	Cog8	Golgi apparatus;membrane	traffic
AK008988	70285			translation
AK003123	68433			unknown
NM_032003	83965	Enpp5	extracellular space;integral to	metabolism
AK008800	70082		membrane	unknown
NM_011907	24102	Trex2	extrachromosomal circular DNA	unknown
NM_011539	21391	Tbxas1	Integral to membrane	lipid metabolism
NM_008317	15586	Hyal1		metabolism
NM_019938	56523	Pmf1p1	cytoplasm	transport
NM_010347	14797	Aes	nucleus	transcription
BC013555	70650	Zcchc8		unknown
NM_011012	18389	Opr1	Integral to plasma membrane	signaling (receptor)
NM_009070	19826	Rnps1	viral nucleocapsid	transcription
NM_021543	18530	Pcdh8	Integral to plasma membrane	cell adh
NM_009197	20502	Slc16a2	Integral to plasma membrane	transport
NM_008468	16650	Kpna6	Importin-, alpha-subunit	transport
NM_033652	110648	Lmx1a	nucleus	transcription
AK006472	74239		myosin	unknown
NM_013535	14790	Grcc10		unknown
AK012224	76795			unknown
AK002667	67899		cytoplasm	unknown
AK009653	68544		membrane	unknown
NM_012030	26941	Slc9a3r1	actin cytoskeleton;apical plasma	ctsk
AK010433	66609	Cryz1l		metabolism
NM_011529	21353	Tank	cytoplasm	signaling
NM_007408	11520	Adip	membrane	unknown
NM_019767	56443	Arpc1a	Arp2-3 protein complex	ctsk
AK004928	58275	Rbm14	cytoplasm;mediator complex;ribon	transcription ?
NM_025407	22273	Uqcrc1	mitochondrial electron transport	metabolism
AK020613	78672		Integral to membrane	misc
NM_010710	16870	Lhx2	transcription factor complex	transcription
BC004630	216549			unknown
NM_012019	26926	Pdcd8	cytosol;mitochondrial intermembr	apoptosis
NM_010911	18041	Nfs1	cytosol;extracellular space;mito	metabolism
AK020702	78428			unknown
NM_026523	68039	Nmb	extracellular space	signaling (secreted)
BC009141	75062	Sf3a3	spliceosome complex	Transcription
NM_019967	56710	Dbccr1	extracellular space;membrane att	misc
NM_010149	13857	Epor	extracellular space;integral to	signaling (receptor)
NM_011251	19654	Rbm6	spliceosome complex	misc
NM_010942	18106	Nsg1	Golgi apparatus;integral to memb	signaling
NM_010362	14873	Gsto1	cytoplasm	misc
AB071988	26914	H2afy	centrosome;condensed chromosome;	cell cycle
AK004007	67855			unknown
NM_008420	16500	Kcnb1	voltage-gated potassium channel	ion channel
NM_019657	56348	Hsd17b12	Integral to membrane;microsome	metabolism
NM_012018	26920	Ma2a8	Integral to membrane	unknown
AK010262	71955			unknown
AK008736	70153			unknown
NM_009369	21810	Tgfb1	extracellular matrix;extracellul	cell adh
BC005574	67876			unknown
NM_011832	23920	Insr	extracellular space;integral to	signaling

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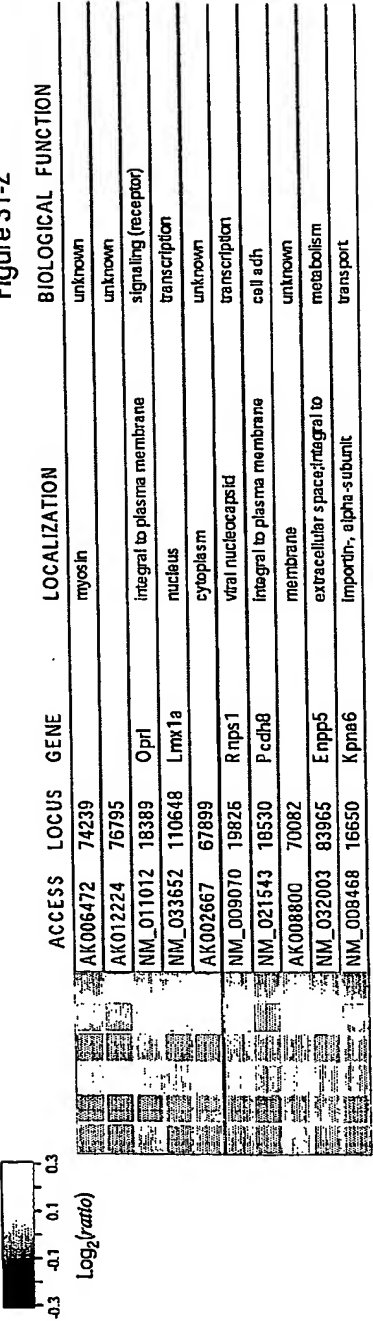
Figure 31-1



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_019657	56348	Hsd17b12	Integral to membrane;microsome	metabolism
NM_012018	26920	Ma2a8	Integral to membrane	unknown
NM_026523	68039	Nmb	extracellular space	signaling (secreted)
AK010262	71955			unknown
AK008736	70153			unknown
NM_007408	11520	Adfp	membrane	unknown
BC009141	75062	Sra3	spliceosome complex	Transcription
NM_019967	56710	Dbccr1	extracellular space;membrane att	misc
NM_010149	13857	Epor	extracellular space;integral to	signaling (receptor)
NM_010362	14873	Gsto1	cytoplasm	misc
AB071988	26914	H2afy	centrosome;condensed chromosome;	cell cycle
AK004007	67855			unknown

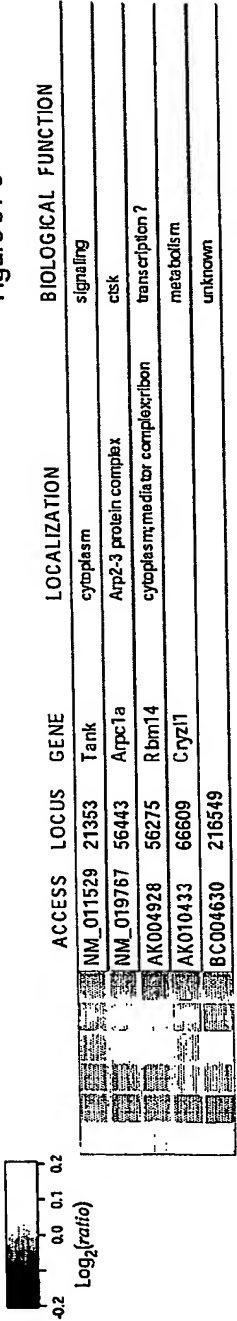
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Figure 31-2



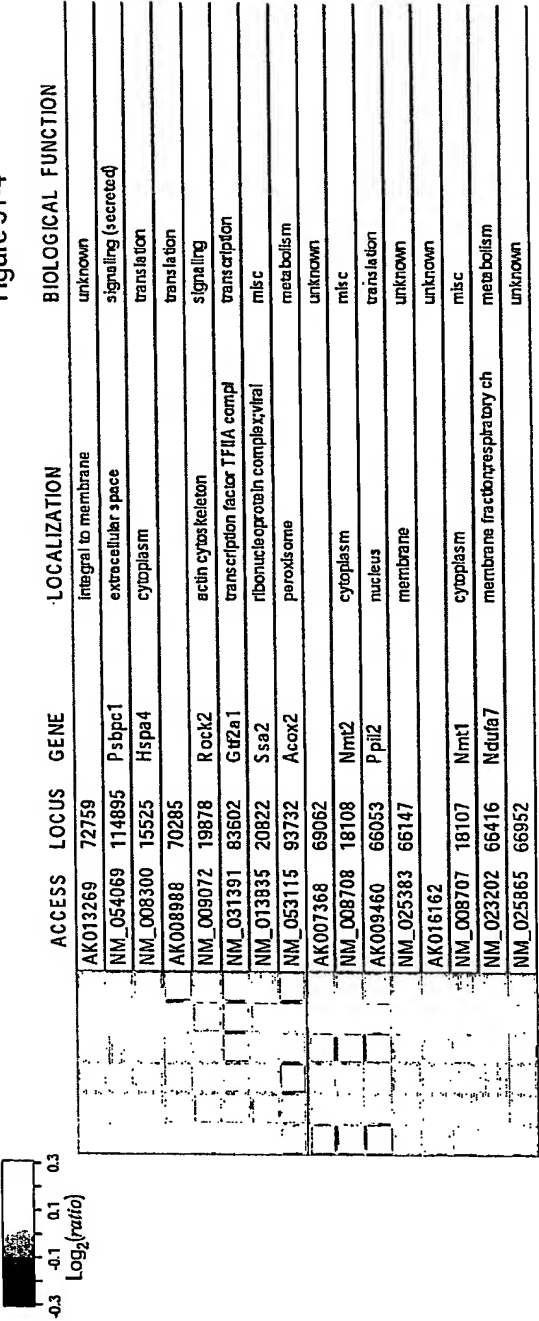
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Figure 31-3



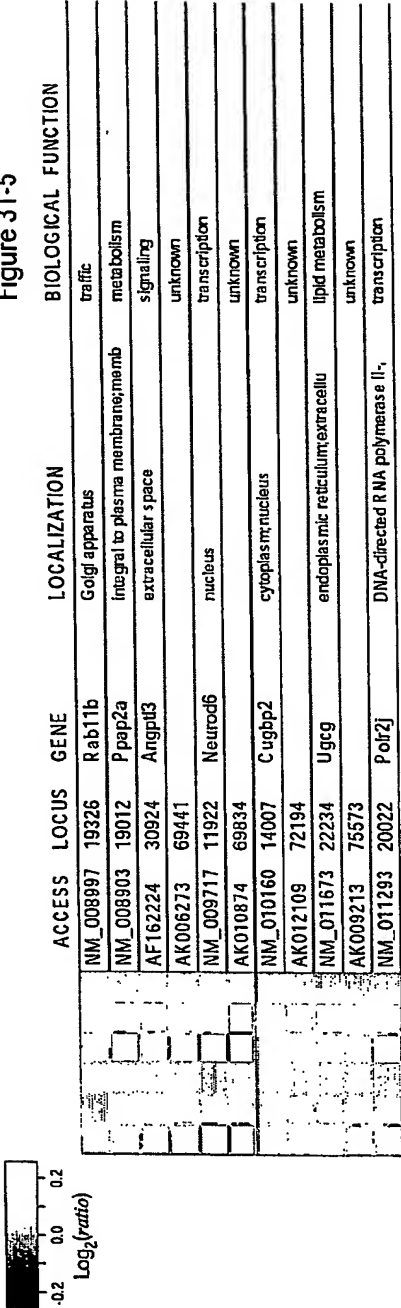
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Figure 31-4



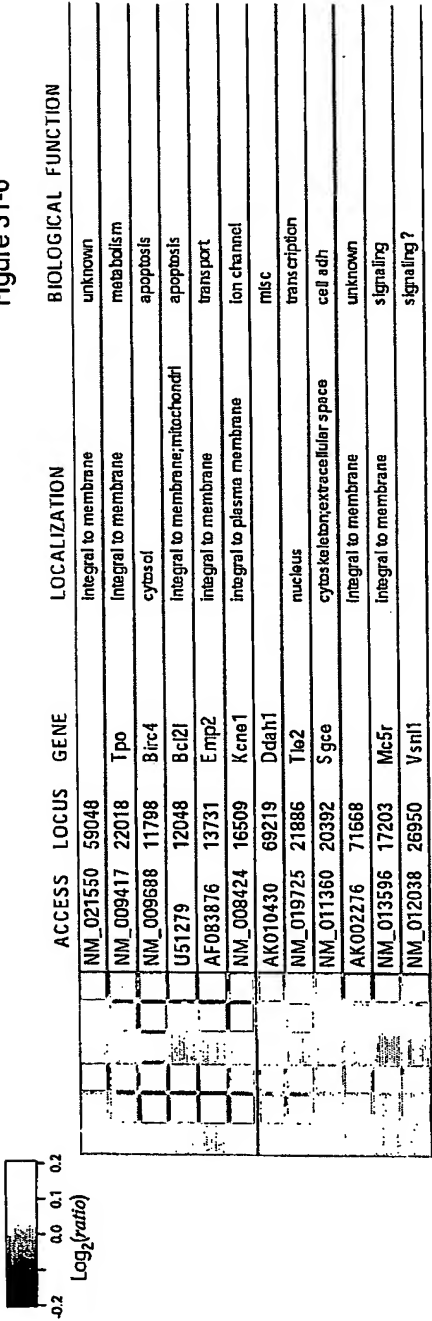
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Figure 31-5



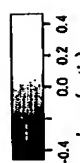
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Figure 31-6



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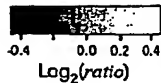
Figure 32 A



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_008399	16407	Igaa	cytoskeleton;extracellular matr	immune response
NM_007471	11820	App	Golgi apparatus;coated pit/endop	cell adh
NM_053186	94218	Cnm3	voltage-gated potassium channel	ion channel
NM_019477	50790	Fac14	cytoplasm;integral to membrane	metabolism
NM_008325	15932	Idua	extracellular space;lysosome	metabolism
NM_020026	26879	B3gal13	Golgi apparatus;extracellular sp	misc
NM_008138	14678	Gna12	plasma membrane	signaling (receptor)
NM_008230	15186	Hdc	extrachromosomal circular DNA	metabolism
NM_019693	53817	Bat1a	spliceosome complex	transcription
NM_025299	27366	Txn14	snRNP U5	transcription
NM_019712	56372		integral to membrane	protein degradation ?
NM_007874	13476	Dp1	integral to membrane	tumor related
AK015921	75209	Sv2c	synaptic vesicle	misc
AK005345	69029		extracellular space;integral to	unknown
NM_013645	19293	Pva	axon;tropotin complex	misc
NM_012029	26940	Stpec	transcription factor complex	transcription
AK017081	74480	Samd4		unknown
NM_020590	57436	Gabarapl1	plasma membrane	csk
NM_007529	12032	Bcan	extracellular matrix;extracellul	signaling / ecm
L34676	11784	Apba2		signaling
AJ276505	79202	Trifsf22 ?	integral to membrane	signaling (receptor)
NM_008377	16206	Lrig1	extracellular space;integral to	tumor related
NM_007495	11899	Astn1	integral to membrane	misc
NM_026495	67991		transcription factor complex	unknown
AK016542	74386		membrane	unknown
AF072758	26568	Slc27a3	integral to membrane	transport
NM_026219	67530	Uqcrc	mitochondrial electron transport	metabolism
AK008201	69875	Ndufa11		misc
BC003914	58875		mitochondrion	misc
AK007598	69162			traffic
AB047820	104416	Bap1	nucleus	protein degradation
NM_025407	22273	Uqcrc1	mitochondrial electron transport	metabolism
BC003847	77125		nucleus	unknown
NM_016698	50849	Rnf10		transcription
AK015106	106039	Gga1	Golgi stack	transport
NM_011874	23996	Psmc4	26S proteasome;cytosol;nucleus	protein degradation

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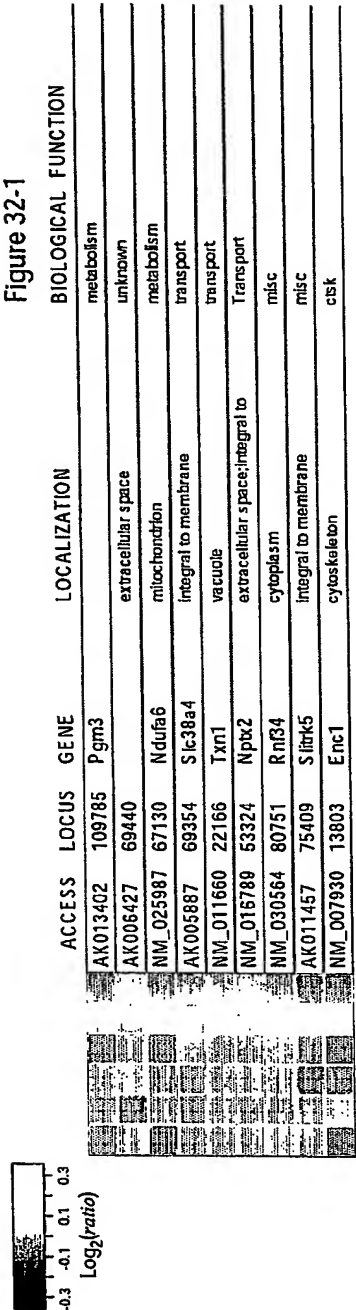
Figure 32 B



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
AK007993	67490		membrane	unknown
NM_026154	107732	Mrp10	mitochondrial large ribosomal su	misc
BC014687	68964			unknown
AB045323	52357	D8Ert594a	intercellular junction	unknown
U51204	100732	Mapre3		ctsk
NM_020293	58863	Cldn9	extracellular space;integral to	cell adh ?
AK003400	88566	Calcyon	integral to membrane	signaling
AK017676	70594			unknown
AK008083	72041			unknown
NM_008729	18163	Catnd2	cytoskeleton	cell adhesion
AK009243	69534	Avpl1		signaling
NM_025387	66154		integral to membrane	unknown
BC005459	102866	Pls3	actin cytoskeleton	ctsk
AK017214	71323			tumor related
NM_009652	11651	Akt1	cytoplasm;protein kinase CK2 com	apoptosis
NM_007804	13048	Cut2	nucleus;ribosome	transcription
NM_021432	58243		chromatin assembly complex	unknown
NM_008770	18417	Cldn11	integral to plasma membrane;igh	cell adh
NM_026592	68170			unknown
NM_010412	15184	Hdac5	cytoplasm;histone deacetylase co	cell cycle
AK007351	69038		integral to membrane	unknown
NM_009426	22044	Trh	extracellular space;soluble frac	growth factor (secreted)
NM_007591	12317	Calr	endoplasmic reticulum lumen;extr	cell adhesion
AJ250690				unknown
NM_025747	66756			unknown
NM_016775	13002	Dnajc5	membrane	translation
NM_023059	24058	Al256711	integral to membrane	signaling ?
NM_013615	18286	Odf2	myosin	ctsk
NM_010879	17974	Nck2	cytoplasm;vesicle membrane	signaling
NM_018803	54526	Syt10	integral to membrane;synapse;syn	transport
AK006427	69440		extracellular space	unknown
NM_016789	53324	Nptx2	extracellular space;integral to	Transport
BC018162	73847			unknown
NM_010282	14593	Ggps1	ribosome	lipid metabolism
NM_008958	19207	Ptch2	integral to membrane	signaling (receptor)
NM_030564	80751	Rnf34	cytoplasm	misc
NM_007689	12643	Chad	extracellular matrix;extracellul	unknown
NM_021548	59046	Arpp19	cytoplasm	transport ?
NM_011860	22188	Txn1	vacuole	transport
AK011457	75409	Sltk5	integral to membrane	misc
AK005887	69354	Slc38a4	integral to membrane	transport
NM_025987	67130	Ndufa6	mitochondrion	metabolism
AK013402	109785	Pgm3		metabolism
NM_025839	66911			cell adh
NM_007930	13803	Enc1	cytoskeleton	ctsk
NM_013738	27260	Plek2	cytoskeleton;membrane;ribosome	ctsk
AK018731	68193	Rpl24		translation
AK011230	72136		integral to membrane	ecm
NM_016749	53311	Mybph	striated muscle thick filament	cell adhesion
NM_011793	23825	Benf1	integral to membrane;nucleus	misc
BC003932	67278			unknown
NM_008847	18720	Pip5k1b	plasma membrane	signaling
AK019059	59040	Arht1	integral to membrane	signaling
AK014772	74592			unknown
NM_016772	51798	Ech1	mitochondrion;peroxisome	metabolism
NM_025272	11974	Atp6v0e	integral to membrane;membrane fr	metabolism
NM_008722	18148	Npm1	nucleolus	unknown
NM_011622	21968	Tom1	Golgi stack;membrane	transport
NM_026065	67270		mitochondrion	unknown
AK007653	52443	D4Ert786e	ribosome	translation
NM_021504	59007	Ngly1	cytoplasm;nucleus	protein degradation
NM_011967	26442	Psm5	proteasome core complex (sensu E	protein degradation
NM_009086	20017	Rpo1-2	DNA-directed RNA polymerase I co	transcription

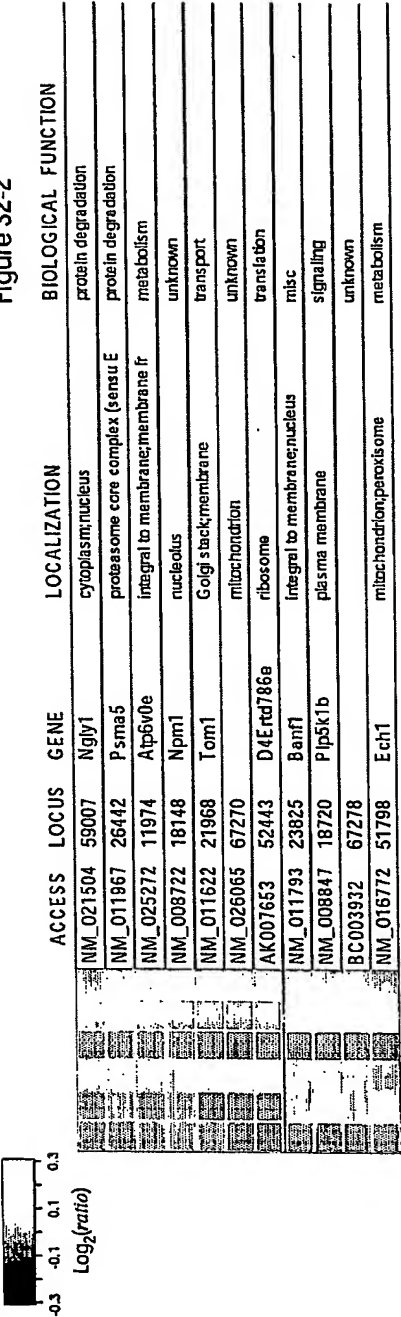
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BS-72
BS-192

Figure 32-1



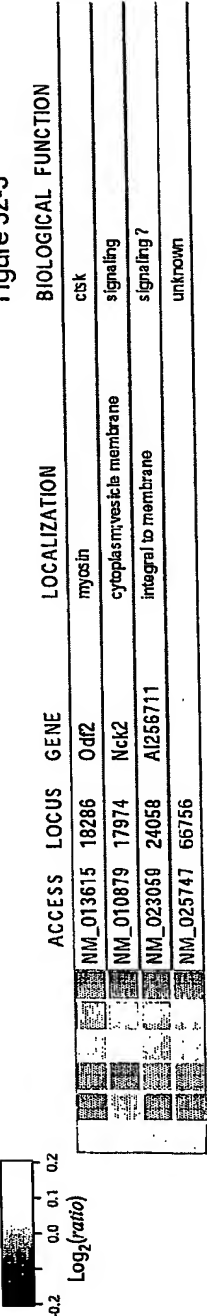
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BS-18
BNS-192
BNS-72
BNS-18

Figure 32-2



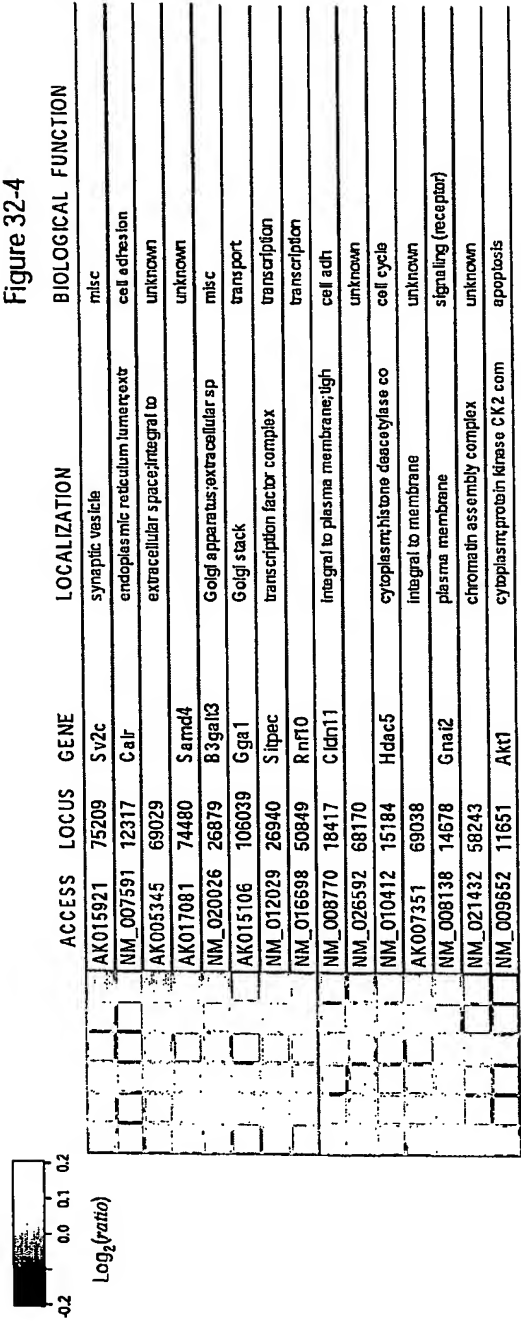
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Figure 32-3



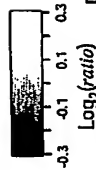
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Figure 32-4



BNS-18
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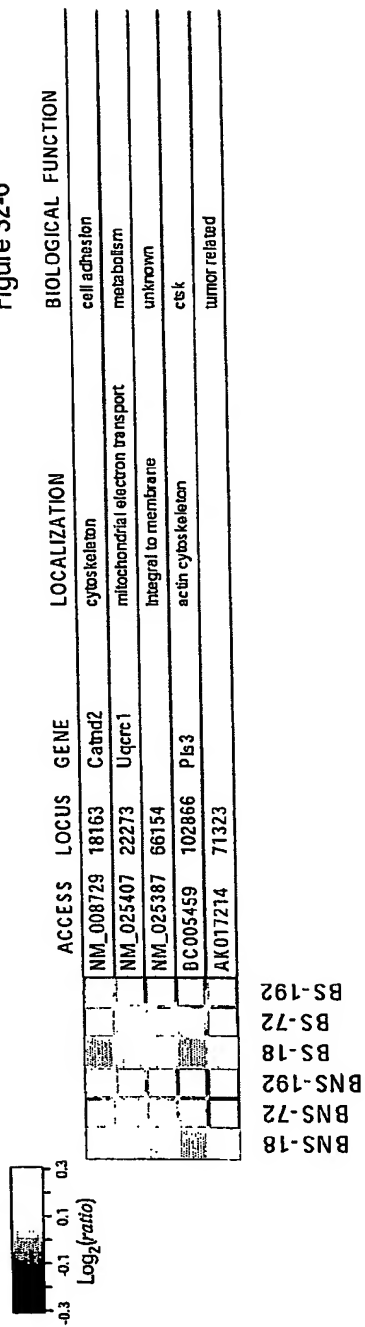
Figure 32-5



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_008377	16206	Lrig1	extracellular space; integral to	tumor related
NM_007495	11899	Astn1	integral to membrane	misc
NM_026495	67991		transcription factor complex	unknown
NM_020590	57436	Gabarapl1	plasma membrane	csk
NM_007529	12032	Bcan	extracellular matrix; extracellular	signaling / ecm
A1276505	79202	Tnfrsf22 ?	integral to membrane	signaling (receptor)
NM_019477	50790	Facl4	cytoplasm; integral to membrane	metabolism
NM_008325	15932	Idua	extracellular space; lysosome	metabolism
BC014687	68964			unknown
AB045323	52357	D8Ertd594e	intercellular junction	unknown
NM_008230	15186	Hdc	extrachromosomal circular DNA	metabolism
NM_007874	13476	Dp1	integral to membrane	tumor related
NM_019772	56372		integral to membrane	protein degradation ?
NM_020293	56863	Cldn9	extracellular space; integral to	cell adh ?
NM_025299	27366	Txn14	snRNP U5	transcription
NM_013645	19293	Pva	axonotoponin complex	misc
NM_008399	16407	Igbe	cytoskeleton; extracellular matrix	immune response
NM_053186	94218	Cnnm3	voltage-gated potassium channel	ion channel
NM_007471	11820	App	Golgi apparatus; coated pit/endop	cell adh

BS-192
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BNS-18

Figure 32-6



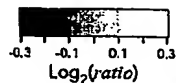
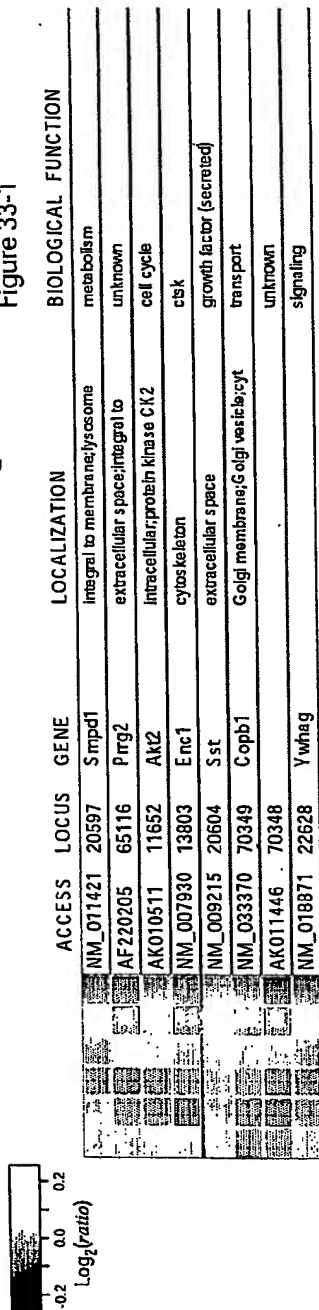


Fig 33

ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_009129	20254	Scg2	cytoplasm;extracellular space	growth factor (secreted)
AK003651	14000	Ethl2		translation
AK008724	70123			unknown
AK008537	67035		cytoplasm	translation
AK003642	68618		lysosome	metabolism ?
NM_024173	66290	Atp6v1g1	hydrogen-translocating V-type AT	transport
NM_010826	17540	Mrvl1	endoplasmic reticulum membrane;	transport
NM_031179	81898	Sf3b1	spliceosome complex	transcription
NM_009788	12307	Calb1	cytoplasm	misc
AK011747	17237	Mgm1	extracellular	apoptosis
AK019147	19084	Prkar1a	cAMP-dependent protein kinase co	misc
AK005852	71838	Phf7		unknown
NM_008292	15488	Hsd17b4	peroxisome	lipid metabolism
AK005205	67129			unknown
NM_013614	18263	Odc	mitochondrial inner membrane	misc
NM_018855	104346	Gas8	flagellum (sensu Eukarya);microt	signaling
NM_018798	54609	Ubqln2	endoplasmic reticulum membrane	unknown
NM_007583	12300	Cacng2	extracellular space;tight junction	ion channel
AK021006	110920	Stch	extracellular space	translation
NM_011310	20197	S100a3		transport
AK012109	72194			unknown
NM_011443	20674	Sox2	cytoplasm;transcription factor c	transcription
NM_011986	26562	Ncdn		unknown
NM_010817	17463	Psmc7	cytosol	translation
AK004655	74107			translation
NM_031248	83409		lysosome	traffic
NM_018871	22628	Ywhag		signaling
NM_011116	18807	Pld3	Integral to membrane;membrane fr	metabolism
NM_033370	70349	Copb1	Golgi membrane;Golgi vesicle;cyt	transport
NM_009215	20604	Sst	extracellular space	growth factor (secreted)
NM_011810	23873	Faim		apoptosis
NM_009861	12540	Cdc42	filopodium	signaling
AK004012	68708		early endosome	tumor related
NM_008797	18563	Pcx	mitochondrion	metabolism
AK010511	11652	Akt2	Intracellular;protein kinase CK2	cell cycle
AF220205	65116	Prrg2	extracellular space;Integral to	unknown
AK013202	20467	Sln3b	nucleus	transcription
NM_025302	27398	Mrp12	extracellular space;mitochondria	translation
AK011446	70348			unknown
NM_007930	13803	Enc1	cytoskeleton	ctsk
NM_052973	94186	Strn3		signaling ?
AK012847	72674		Integral to membrane	unknown
NM_011421	20597	Smpd1	Integral to membrane;lysosome	metabolism
AK015898	75141	Ras d2		signaling

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Figure 33-1



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BNS-18

Figure 33-2

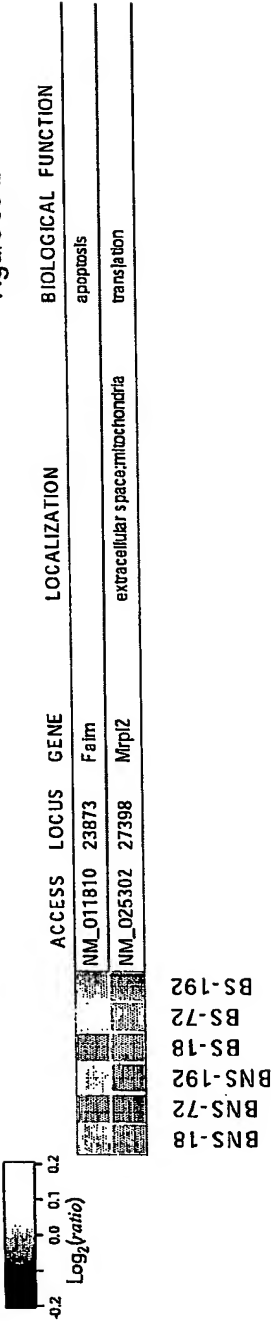
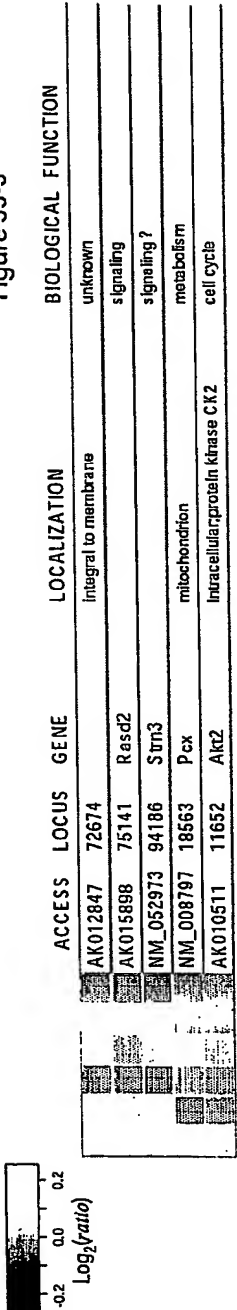


Figure 33-3



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Figure 33-5

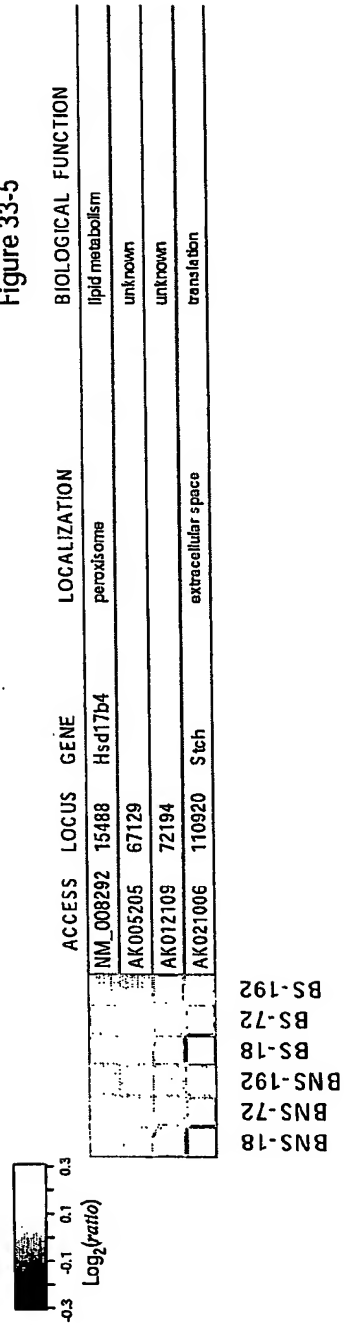
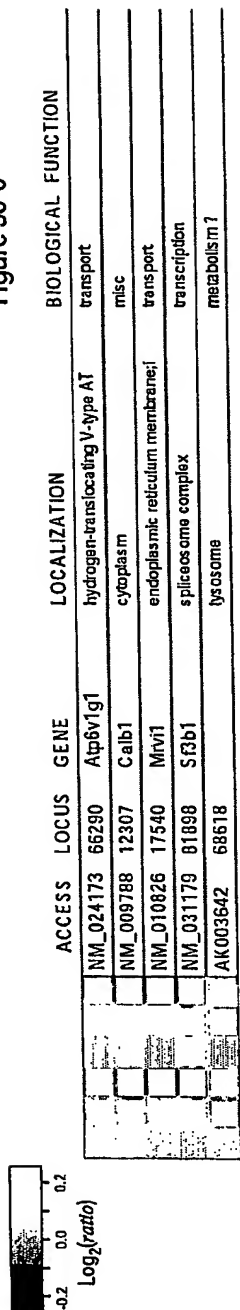


Figure 33-6



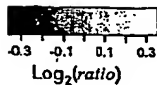


Figure 34 A

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_028770				unknown
	AK006504	76380		myosin	signaling
	NM_007743	12843	Col1a2	collagen;extracellular space	ecm
	NM_025849	66928		integral to membrane	unknown
	NM_011772	22781	Znfn1a4	transcription factor complex	misc
	AK012785	69938	Scrn1		unknown
	AK012392	76816	Sdccag8	centrosome	immune response
	NM_008638	17768	Mthfd2	extracellular space;mitochondrio	metabolism
	NM_008737	18186	Nrp	extracellular space;integral to	cell adh
	AK016282	75863			unknown
	AK005138	101867		membrane	translation ?
	AK005558	76509			signaling (receptor)
	X97581	20689	Sal13	nucleus	transcription
	AK010301	71973		spliceosome complex	transcription
	NM_016744	18573	Pde1a	insoluble fraction	metabolism
	NM_008602	17344	Miz1	nucleus;septin ring	transcription
	NM_008702	18099	Nlk	nucleus;protein kinase CK2 compl	signaling
	NM_007647	12499	Entpd5	endoplasmic reticulum;extracellu	misc
	AK008163	76523			unknown
	NM_022022	63958	Ube4b	cytoplasm;ubiquitin ligase compl	protein degradation
	NM_011025	18429	Oxt	extracellular space	signaling (secreted)
	NM_023191	66317		heterotrimeric G-protein complex	signaling ?
	AK006023	75540	Fpgt		misc
	BC011482	23943	Mbc2	integral to membrane	unknown
	AK003656	74775		integral to membrane	unknown
	NM_016692	16319	Incnp	chromosome-, pericentric region;	cell cycle
	Y15910	54004	Diap2		misc
	NM_019931	56543	Kcnd3	extracellular space;voltage-gate	Transport
	NM_019799	56315	Rhcg	integral to plasma membrane	transport
	NM_010826	17540	Mrv1	endoplasmic reticulum membrane;	transport
	NM_019575	56214	Scamp4	integral to membrane;synaptic ve	traffic
	NM_021704	20315	Cxcl12	extracellular space	immune response (secreted)
	AF285677	107816	Scml2		tumor related ?
	NM_021888	60507	Qbt1		misc
	NM_053204	111173	Rab6ip2	non-muscle myosin	signaling
	NM_023503	69260	Ing11		transcription
	NM_025921	67028			unknown
	NM_021712	20508	Slc18a3	integral to plasma membrane	transport
	NM_007785	13019	Ctfl	extracellular	growth factor (secreted)
	NM_011341	20318	Sdf4	Golgi apparatus;extracellular sp	misc
	BC005600	70231	Gorasp2	Golgi membrane	unknown
	NM_007748	12861	Cox6a1	integral to membrane;respiratory	metabolism
	NM_021555	59053	Brip16		unknown
	AK010552	66984			unknown
	NM_023041	19298	Pxf	integral to membrane;peroxisomal	misc
	BC004012	192185	BC004012	cytosol;extrachromosomal circula	metabolism
	NM_023377	170460	Stard5		transport
	NM_023370	22295	Cdh23	cilium;extracellular space;integ	misc
	S82853	21915	Dymk		metabolism
	NM_009614	11490	Adam15	extracellular matrix;extracellul	protein degradation
	U85993	310845		extracellular space	unknown
	AF106621	21855	Timm17b	integral to membrane;mitochondri	traffic
	NM_007761	12909	Crcp		signaling (receptor)
	NM_007610	12366	Casp2	caspase complex;nucleus	apoptosis
	AK004714	74133		extracellular space	unknown
	AJ278733	17884	Myh4	myosin;striated muscle thick fil	ctsk
	X81365	21367	Cntn2	axon	cell adh
	BC004739	213211	Rnf26		apoptosis
	NM_013727	27215	Azi2	cytoplasm	signaling
	AK004506	68942			unknown
	NM_080287	140579	Elmo2	cytoskeleton;membrane	signaling

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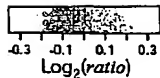



Figure 34 B

ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
AK006525	70375			misc
NM_025806	66857		extracellular space	unknown
NM_028146	72185		plasma membrane	unknown
NM_011040	18510	Pax8	transcription factor complex	transcription
NM_010727	16924	Lnx1	cytoplasm;extracellular space	signaling
NM_025962	67096		membrane	unknown
NM_008903	19012	Ppap2a	Integral to plasma membrane;memb	metabolism
NM_053069	11793	Apg5l	cytoplasm	misc
NM_016985	53332	Mtmr1	cytoplasm;plasma membrane	signaling ?
NM_019705	24105	AL033326	spliceosome complex	protein degradation
NM_016863	14226	Fkbp1b		signaling
NM_024475	79560	BC002236	proteasome regulatory particle (unknown
AF129888	20918	Sui1-rs1	cytoplasm	translation
AK013511	72900	Ndufv2	mitochondrion	metabolism
BC006805	72692			metabolism
AF092877	19823	Rnf7	cytoplasm;nucleus	apoptosis
NM_019410	18845	Pfn2	actin cytoskeleton	ctsk
AK003866	28295	D10Jhu81e	cell wall;extracellular space;ml	unknown
NM_030716	80906	Kcnp2	plasma membrane	ion channel
NM_008734	18183	Nrg3	extracellular;Integral to plasma	growth factor (secreted)
BC016258	71732	Vps11	membrane	transport
NM_007936	13838	Epha4	Integral to plasma membrane	signaling (receptor)
AK007913	69833		DNA-directed RNA polymerase I co	transcription
AB030906	29871	Scmh1	chromatin	transcription
NM_016737	20867	Stp1	Golgi apparatus;nucleus	misc
NM_013933	30960	Vapa	endoplasmic reticulum;Integral t	misc
NM_011705	22367	Vrk1		signaling
AK011810	68263	Pdxb	mitochondrion	metabolism
AK010310	67755	Ddx47	cytoplasm	misc
NM_007931	13804	Endog	extracellular space;mitochondrio	misc
NM_011656	22156	Tuft1	extracellular	ctsk
NM_013614	18263	Odc	mitochondrial inner membrane	misc
NM_009503	269523	Vcp	Golgi apparatus;endoplasmic ret	transport
NM_030263	80295	BC003498		unknown
AK010425	71957		mRNA cleavage and polyadenylato	unknown
NM_011674	22239	Ugt8	extracellular space;Integral to	metabolism
NM_009215	20604	Sst	extracellular space	growth factor (secreted)
NM_008161	14778	Gpx3	extracellular space	metabolism
NM_026068	67279		nucleus	unknown
NM_011072	18643	Pfn1	actin cytoskeleton	ctsk
NM_025964	67099		extrachromosomal circular DNA	unknown
NM_019913	56551	Txn2	mitochondrion	transport
NM_012032	26943	Tde1	Golgi apparatus;extracellular sp	tumor related
NM_010313	14697	Gnb5	heterotrimeric G-protein complex	signaling
NM_008374	16199	Ii9r	Integral to plasma membrane	immune response (receptor)
AK003611	67070			unknown
NM_053074	18226	Nup62	nuclear pore	transport
NM_011917	24128	Xrn2	nucleus	transcription
AK013948	69269	Scnm1		transcription
AK010382	243983		actin cytoskeleton;Integral to m	transcription
NM_011018	18412	Sqstm1	cytosol	protein degradation
AK017020	71241	Dmr22		unknown
NM_013703	22359	Vldlr	coated pit;extracellular space;l	signaling
AK016786	71804		ribosome	unknown
NM_019510	22065	Trpc3	Integral to membrane	transport
AK014134	73172		extrachromosomal circular DNA	unknown
AK009447	66700	Vps24	non-muscle myosin	ctsk ?
NM_026123	67387		Integral to membrane	unknown
NM_011908	24109	Ubl3		unknown
NM_053071	12864	Cox6c	extracellular space;Integral to	transport
AF220355	56747	A1843918		unknown
NM_011543	21402	Skp1a	SCF ubiquitin ligase complex;nuc	translation
BC005517	71704	Arhgef3	cytoplasm	signaling (GEF)

BNS-18
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Figure 34-1

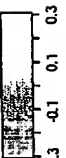


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ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_011018	18412	Sqstm1	cytosol	protein degradation
AK014134	73172		extra chromosomal circular DNA	unknown
NM_025964	67099		extra chromosomal circular DNA	unknown
AK013511	72900	Ndufv2	mitochondrion	metabolism
NM_026123	67387		integral to membrane	unknown
NM_011908	24109	Ubi3		unknown
AF220355	56747	Alb43918		unknown
NM_019705	24105	AL033326	spliceosome complex	protein degradation
AK017020	71241	Dmrtc2		unknown
AK016786	71804		ribosome	unknown
NM_016863	14226	Fkbp1b		signaling
AF129888	20918	Sui1-rs1	cytoplasm	translation
NM_053069	11793	Appl	cytoplasm	misc

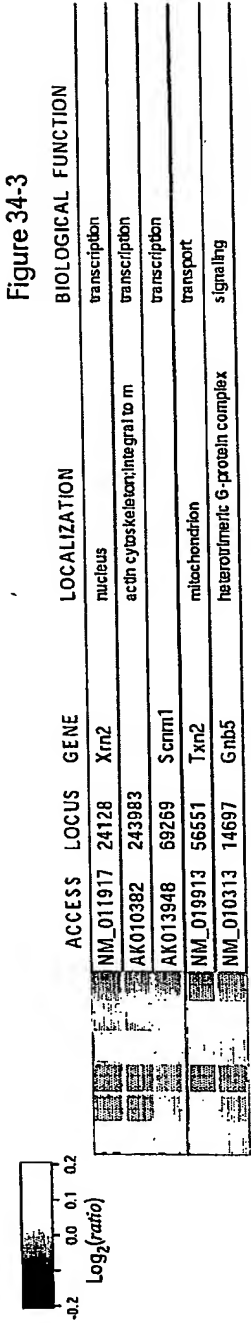
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BNS-192
BS-18
BS-72
BS-192

Figure 34-2



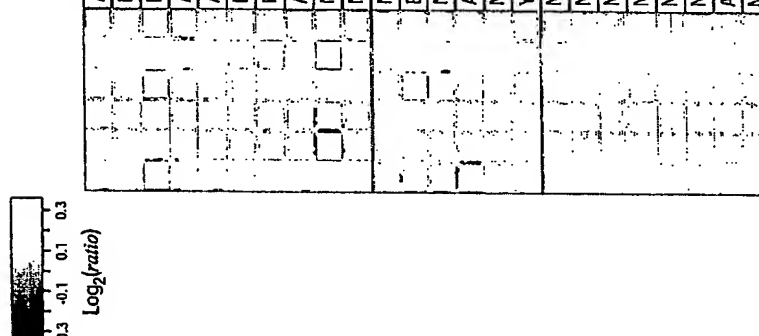
ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_009503	269523	Vcp	Golgi apparatus;endoplasmic ret	transport
AK010425	71957		mRNA cleavage and polyadenylation	unknown
NM_013614	18263	Odc	mitochondrial inner membrane	misc
NM_009215	20604	Sst	extracellular space	growth factor (secreted)
NM_008161	14778	Gpx3	extracellular space	metabolism
NM_016985	53332	Mtmr1	cytoplasm;plasma membrane	signaling ?
NM_026068	67279		nucleus	unknown
NM_011072	18643	Pin1	actin cytoskeleton	cbk
AF092877	19823	Rnrf7	cytoplasm;nucleus	apoptosis
NM_016737	20867	Stip1	Golgi apparatus;nucleus	misc
NM_030716	80906	Kcnp2	plasma membrane	ion channel
NM_019410	18645	Pin2	actin cytoskeleton	cbk
BC016258	71732	Vps11	membrane	transport
AB030906	29871	Scmh1	chromatin	transcription
BC006805	72692			metabolism
NM_008734	18183	Nrg3	extracellular;integral to plasma	growth factor (secreted)
NM_007936	13838	Epha4	integral to plasma membrane	signaling (receptor)

BS-192
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BNS-18
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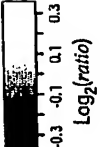
Figure 34-4



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
AK006504	76380		myosin	signaling
NM_011772	22781	Znf1a4	transcription factor complex	misc
NM_007743	12843	Col1a2	collagen;extracellular space	ecm
AK012392	76816	Sdccag8	centrosome	immune response
AK006023	75540	Fpgt		misc
NM_021704	20315	Cxcl12	extracellular space	immune response (secreted)
NM_021888	60507	Qrt1		misc
AK012765	69938	Scrn1		unknown
NM_008638	17768	Mthfd2	extracellular space;mitochondrio	metabolism
NM_008737	18186	Nrp	extracellular space;integral to	cell adh
NM_022022	63958	Ube4b	cytoplasm;ubiquitin ligase compl	protein degradation
BC011482	23943	Mbc2	integral to membrane	unknown
NM_023191	66317		heterotrimeric G-protein complex	signaling ?
AK003656	74775		integral to membrane	unknown
NM_011025	18429	Oxt	extracellular space	signaling (secreted)
Y15910	54004	Diap2		misc
NM_019575	56214	Scamp4	integral to membrane;synaptic ve	traffic
NM_023503	69260	Ing11		transcription
NM_011341	20318	Sdf4	Golgi apparatus;extracellular sp	misc
NM_008702	18099	Nik	nucleus;protein kinase CK2 compl	signaling
NM_007748	12861	Cox6a1	integral to membrane;respiratory	metabolism
NM_019799	56315	Rhcg	integral to plasma membrane	transport
AF285577	107815	Scml2		tumor related ?
NM_010826	17540	Mrv11	endoplasmic reticulum membrane;l	transport

BS-192
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BS-18
BNS-192
BNS-72
BNS-18

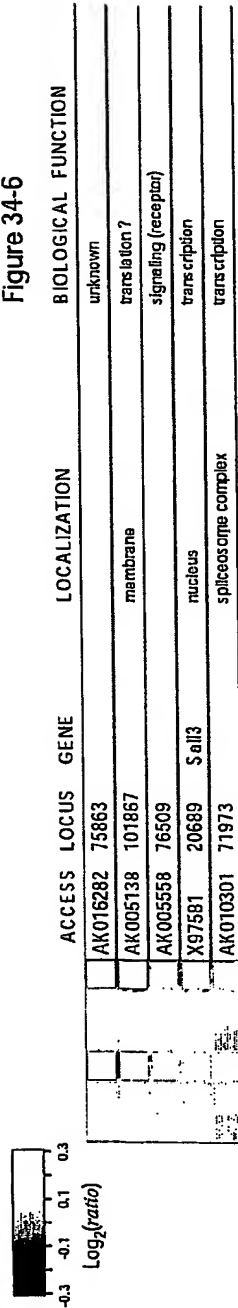
Figure 34-5



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_021555	59053	Btp16		unknown
AK010552	66984			unknown
X81365	21367	Cntn2	axon	cell adh
BC004739	213211	Rnf26		apoptosis
NM_023041	19298	Pxf	Integral to membrane; peroxisomal	misc
BC004012	192185	BC004012	cytosol; extrachromosomal circula	metabolism
NM_007610	12366	Casp2	caspase complex; nucleus	apoptosis
AK004714	74133		extracellular space	unknown
NM_007761	12909	Crcp		signaling (receptor)
AJ278733	17884	Myh4	myosin; striated muscle thick fil	ctsk


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BS-192

Figure 34-6



BNS-18
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BS-192

Figure 35 A



	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_026583	68152		membrane	unknown
	NM_025446	56470	Rgs19	Golgi apparatus;heterotrimeric G	transcription
	NM_011478	20766	Spr3	coated envelope	cisk ?
	AK018615	71597		nucleus	unknown
	AK007389	107686	Sripd2	small nuclear ribonucleoprotein	transcription
	AF078112	12328	Caml ?	integral to membrane ?	signaling ?
	AK010387	69748			metabolism ?
	AF408435	233406	Prc1	spindle	cell cycle
	NM_011352	20361	Sema7a	extracellular space;integral to	signaling
	NM_024255	72479		mitochondrion	metabolism
	NM_013789	27414	Gnefr	cytoplasm;nucleus	misc
	NM_007625	12418	Cbx4	chromatin;nucleus	transcription
	BC017625	68047			unknown
	AK010234	50724			unknown
	NM_029457	75826	Serp2	nucleus	signaling
	BC017606	72605	Car10	extracellular space	metabolism
	AK014579	74347			unknown
	AK015818	75075			unknown
	NM_008937	19130	Prox1	transcription factor complex	transcription
	BC005625	217038			unknown
	NM_022982	65079	Rtn4r	extracellular space;plasma membr	signaling (receptor)
	AK011557	69903		mitochondrial outer membrane	unknown
	NM_011312	20199	S100a5	cytoplasm	signaling ?
	AK014408	74315			tumor related
	NM_031879				unknown
	NM_023191	66317		heterotrimeric G-protein complex	signaling ?
	NM_009041	19684	Rdx	actin cytoskeleton;microvillus	cisk

BNS-18
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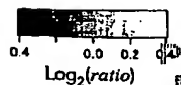
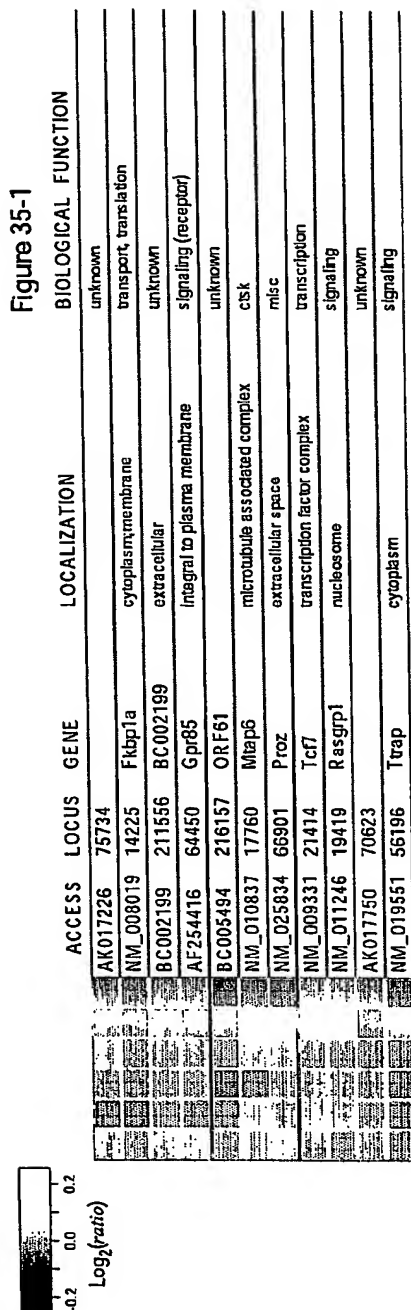


Figure 35 B

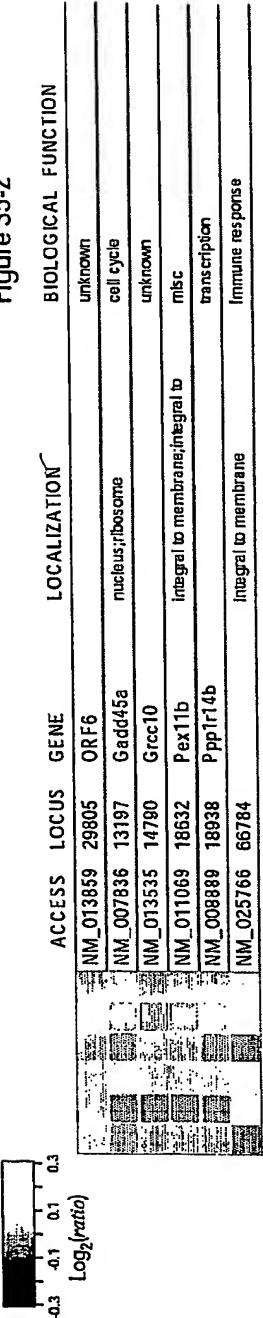
Accession	Gene	Localization	Biological Function
AK014338	Armet	extracellular space	tumor related
NM_007498	Atf3	transcription factor complex	transcription
AK011978			unknown
NM_025456			unknown
NM_009092	Rps17	cytosolic small ribosomal subunit	translation
NM_031170	Sf3b1	spliceosome complex	transcription
L34676	Apba2		signaling
AK011541			unknown
NM_019929	Smt3h1		cell cycle
AK005139	Agpat4	integral to membrane	lipid metabolism
AK016520	Cul2	nuclear ubiquitin ligase complex	tumor related - apoptosis - cell cycle
NM_019667	Satm2	cytoplasm	signaling
AK018132		lysosome	signaling
NM_011929	Cln6	integral to plasma membrane	ion channel
AK005619			unknown
AK017214			tumor related
AK009584	Exosc8	exosome (RNase complex); nucleus	transcription
AK020377			unknown
AK008071			unknown
AK010939	Hsbp1	extracellular; nucleus	transcription
AK007546	Dek	nucleus	transcription
BC005603	Taf11	transcription factor TFIID complex	transcription
NM_026061	Ndufb8	extracellular space; integral to	metabolism
NM_023055	Sic9a3r2	epical plasma membrane	signaling ?
NM_021382	Tacr3	integral to membrane; plasma memb	signaling (receptor)
NM_025895			unknown
BC002199	BC002199	extracellular	unknown
AF254416	Gpr85	integral to plasma membrane	signaling (receptor)
NM_027493	Actr8	actin cytoskeleton	ctsk
NM_025834	Proz	extracellular space	misc
AK012087			unknown
AK016572		integral to membrane	unknown
BC013471		integral to membrane	lipid metabolism ?
AK005251		mediator complex	transcription
NM_021877	hr	nuclear pore	transcription
BC003922	D11Etd530e	nucleus	unknown
NM_027722		intracellular; membrane	traffic
NM_024173	Atp6v1g1	hydrogen-translocating V-type AT	transport
NM_008187	Gtd3	heterotrimeric G-protein complex	transcription ?
NM_013535	Grcc10		unknown
NM_011069	Pex11b	integral to membrane; integral to	misc
NM_008889	Ppp1r14b		transcription
NM_007636	Gadd45a	nucleus; ribosome	cell cycle
NM_009331	Tcf7	transcription factor complex	transcription
AK017750			unknown
NM_011246	Rasgrp1	nucleosome	signaling
NM_013859	ORF6		unknown
AK013632			unknown
BC005494	ORF61		unknown
NM_010837	Mtap6	microtubule associated complex	ctsk
NM_019551	Trap	cytoplasm	signaling
NM_008019	Fkbp1a	cytoplasm; membrane	transport, translation
AK017226			unknown
NM_025766		integral to membrane	immune response
AK003524			unknown
NM_009030	Rbbp4	chromatin assembly complex	cell cycle
AK013727	Gabra4	integral to plasma membrane	signaling
NM_013680	Syn1	synapse; synaptic vesicle	transport
NM_021430		late endosome	unknown
NM_007637	Cct5	chaperonin-containing T-complex	translation
AK014834			unknown
AK012304			unknown
NM_025835	Pccb	biotin carboxylase complex; extra	metabolism

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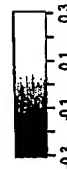
BNS-18
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Figure 35-2



BNS-18
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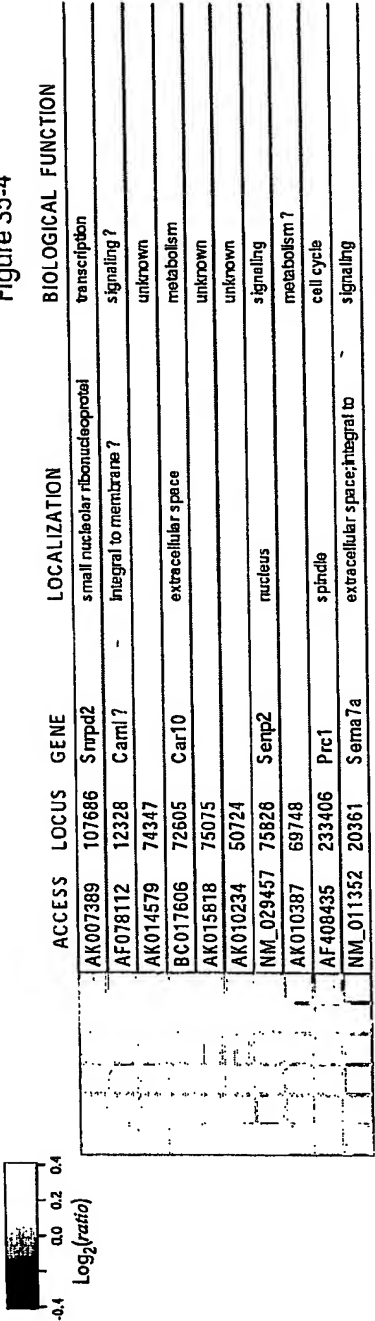
Figure 35-3



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
AK012087	70028			unknown
AK016572	74411		integral to membrane	unknown
NM_007637	12465	Cct5	chaperonin-containing T-complex	translation
NM_021430	75695		late endosome	unknown
AK005251	68975		mediator complex	transcription
BC013471	77056		integral to membrane	lipid metabolism ?
AK014834	75778			unknown
AK012304	72612			unknown
NM_025835	66904	Pccb	biotin carboxylase complex:extra	metabolism
NM_013680	20964	Syn1	synapse/synaptic vesicle	transport

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Figure 35-4



BS-192
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BNS-18

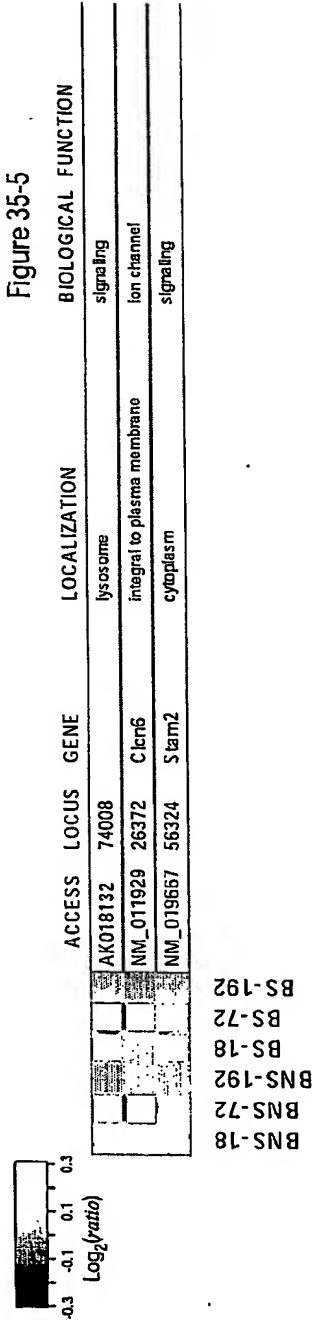


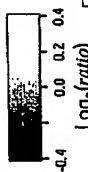
Figure 35-6

Log₂(ratio)

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	AK011978	269003			unknown
	NM_025456	66266			unknown
	BC005625	217038			unknown
	NM_007498	11910	Auf3	transcription factor complex	transcription
	AK014338	74840	Armet	extracellular space	tumor related
	NM_009041	19684	Rdx	actin cytoskeleton/microvillus	ctsk
	NM_024255	72479		mitochondrion	metabolism
	NM_013789	27414	Gnefr	cytoplasm/nucleus	misc
	BC017625	68047			unknown

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Figure 36 A



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
U64606	17977	Ncoa1	cytoplasm	signaling
AK004586	6868		integral to membrane	transport
NM_025427	66214		cytoplasm; nucleus	cell cycle
NM_011156	19072	Prep	cytoplasm; nucleus	protein degradation
AK011531	67788			unknown
BC005741	23835	Trrc6	extracellular	misc
AK013604	72880			unknown
NM_023372	67671		cytosolic large ribosomal subunit	misc
AK005311	66871	Cpna8	membrane	misc
NM_080639	110595	Timp4	extracellular matrix; extracellular	protein degradation
NM_010607	16526	Kcnk2	voltage-gated potassium channel	transport
NM_011231	19352	Rabggb	cytoplasm	misc
NM_009020	19374	Rag2	alpha DNA polymerase-primase co	cell cycle
NM_021710	11782	Ap4s1	Golgi trans face; clathrin vesicle	transport
AK010453	69719	Cad	aspartate carboxyltransferase c	metabolism
NM_031401	83679	Usmg4		unknown
NM_009727	11980	Atp8a1	integral to membrane	transport; metabolism
NM_010799	17330	Mmp1	endoplasmic reticulum; extracellular	metabolism
NM_025316	66046	Ndufb5		metabolism
NM_019443	54405	Ndufa1	extracellular space; mitochondrion	metabolism
AK007831	68115			unknown
AB039178				unknown
NM_011343	20335	Sec61g	endoplasmic reticulum; integral t	transport
NM_019983	56715	Rabgef1	plasma membrane	unknown
NM_011588	21849	Trim28	chromatin; nucleus	transcription
AK011950	67157			unknown

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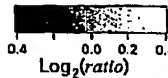
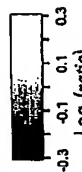


Figure 36 B

ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
X13721	15416	Hoxb8	transcription factor complex	transcription
NM_013602	17748	Mt1	cytosol;lysosome	signaling ?
NM_011870	23991	Ct1	synaptic vesicle	signaling
U22015	20184	Rxrip110		signaling (receptor)
NM_009738	12038	Bche	plasma membrane	misc
AK004341	68845		membrane	unknown
NM_030749	81500		endoplasmic reticulum;extracellu	transport
NM_023197	66356		integral to membrane	unknown
NM_023043	26434	Prnd		misc
AK008749	66132			unknown
NM_031261	83457	Fth17	ferritin complex	misc
M34173	12946	Crry	membrane	immune response (receptor)
AK010654	72425		katanin	unknown
AK005056	66897		membrane	translation
NM_028122	108052	Slc14a1	integral to membrane	transport
NM_007620	12408	Cbr1	cytosol	metabolism
AF276975	192200	Swam2	extracellular space	metabolism
NM_022995	65112		integral to membrane	misc
AK011396	234729	D8Wsu151e		unknown
AK006273	69441			unknown
NM_010412	15184	Hdac5	cytoplasm;histone deacetylase co	cell cycle
AK020284	77669			signaling (GEF) ?
NM_022886	64929	Scel	cytoplasm	misc
NM_016908	53420	Syt5	integral to membrane;synapse;syn	traffic
D86949	18845	Plxna2	extracellular space;integral to	signaling
AK005159	72017		extracellular space	transport
NM_029716	108699	Chn1	cytoplasm	signaling
AK005089	68970		heterotrimeric G-protein complex	unknown
NM_009730	11990	Atn	extracellular space;integral to	cell adh (receptor)
NM_026235	67557		nucleus;viral nucleocapsid	unknown
AK002772	66425			unknown
NM_007945	13860	Eps8	cytoplasm	protein degradation
AK018327	76206		integral to membrane	unknown
AK005069	71767			protein degradation ?
AK020702	78428			unknown
AK011862	28018	D7Wsu128e		protein degradation ?
AF090738	16368	Irs2		signaling (receptor)
NM_008972	19231	Puma	nucleus;ribosome	translation
AF334612	170761	Pdzk2	actin cytoskeleton	signaling
NM_013638	19120	Prrn3	nucleosome;nucleus	cell cycle
AK016671	74412	Gle1l		Transport
NM_031162	12503	Cd3z	integral to membrane;plasma memb	Immune response
AF293079	18360	Olfr6	integral to membrane	signaling
NM_011305	20181	Rxra	transcription factor complex	transcription
NM_023662	18536	Pcm1	pericentriolar material	cell cycle
NM_011500	268980	Strn	cytoplasm	transcription
NM_025855	52665	Echdc1	mitochondrion	unknown
NM_009647	11639	Ak4	mitochondrion	metabolism
AK008111	75599		membrane	cell adh
NM_008078	14417	Gad2	extrachromosomal circular DNA	metabolism
AK017044	71304			unknown
NM_031156	15925	Idc	extracellular space;peroxisome;s	protein degradation
NM_009237	20675	Sox3	transcription factor complex	transcription
NM_011512	20932	Surf4	endoplasmic reticulum membrane;l	misc
NM_008497	16866	Lhb	extracellular space	growth factor (secreted)
AK010312	76483		integral to membrane	unknown
NM_019657	56348	Hsd17b12	integral to membrane;microsome	metabolism
AK007994	72042	Col1	cytoskeleton	ctsk
NM_009088	19766	Ripk1		apoptosis
AK002416	68350		integral to membrane;lateral pla	transport ?
NM_010781	17229	Mept6	extracellular space	protein degradation
NM_026154	107732	Mrpl10	mitochondrial large ribosomal su	misc
NM_009437	22117	Tst	mitochondrial matrix	metabolism

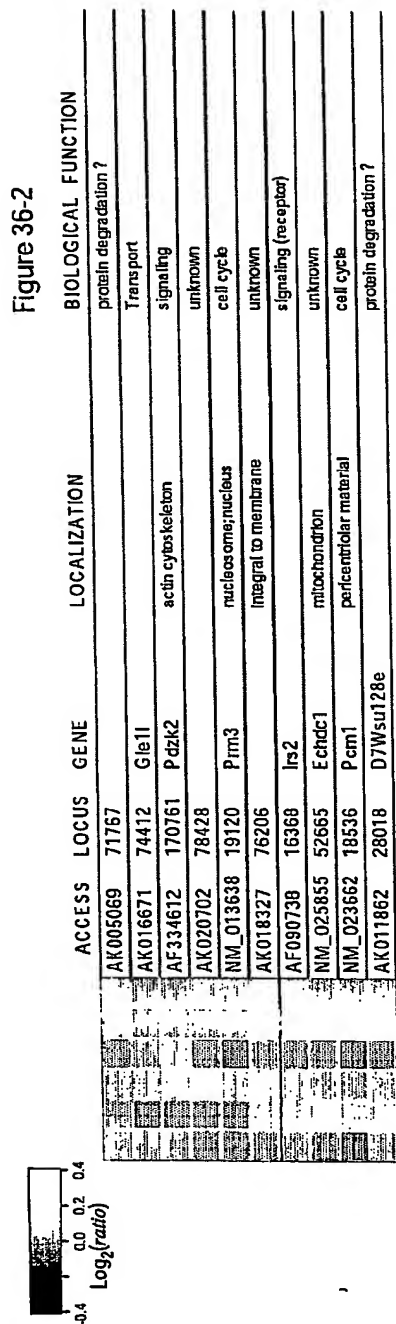
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Figure 36-1



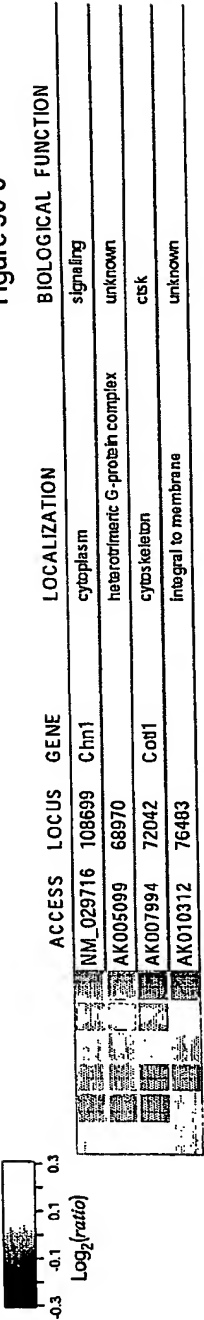
ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
AK005159	72017		extracellular space	transport
NM_009730	11990	Attn	extracellular space; integral to	cell adh (receptor)
NM_026154	107732	Mrip10	mitochondrial large ribosomal su	misc
AK002416	68350		integral to membrane; lateral pla	transport?
NM_029716	108699	Chn1	cytoplasm	signaling
NM_010781	17229	Mept6	extracellular space	protein degradation
NM_008497	16866	Lhb	extracellular space	growth factor (secreted)
NM_019657	56348	Hsd17b12	integral to membrane; microsome	metabolism
AK008111	75599		membrane	cell adh
NM_008078	14417	Gad2	extrachromosomal circular DNA	metabolism
NM_016908	53420	Syt5	integral to membrane; synapse; syn	traffic
D86949	18845	Plkna2	extracellular space; integral to	signaling

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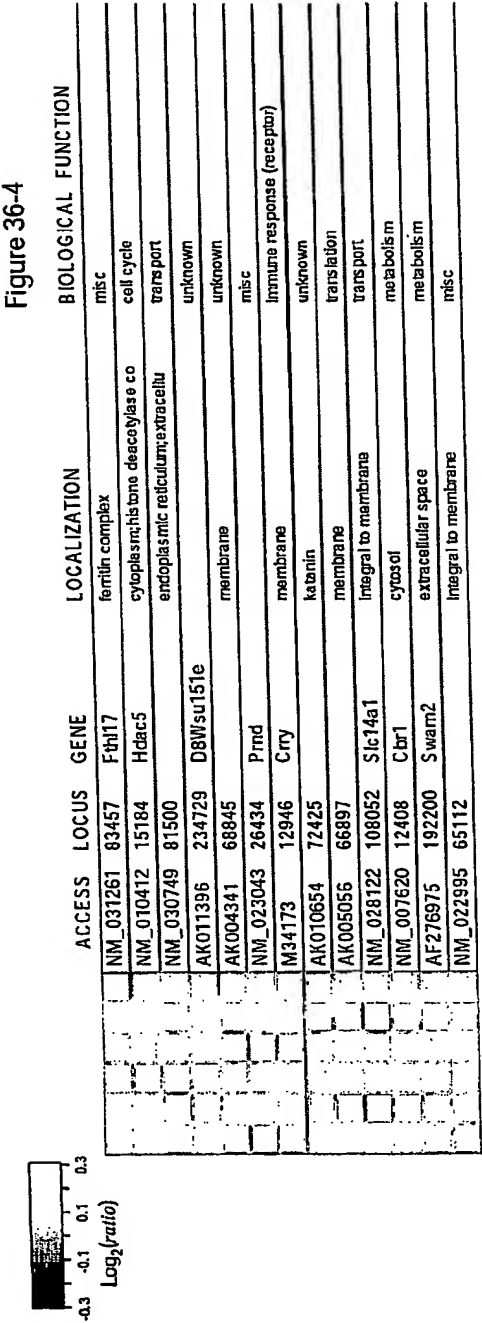
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Figure 36-3



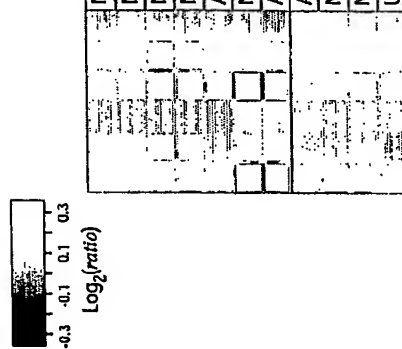
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Figure 36-4



BNS-18
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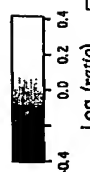
Figure 36-5



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_080639	110595	Timp4	extracellular matrix;extracellular	protein degradation
NM_010607	16526	Kcnk2	voltage-gated potassium channel	transport
NM_009020	19374	Rag2	alpha DNA polymerase-primase co	cell cycle
NM_011231	19352	Rabggb	cytoplasm	misc
AK011531	67788			unknown
NM_021710	11782	Ap4s1	Golgi trans face;clathrin vesicl	transport
AK010453	69718	Cad	aspartate carbamoyltransferase c	metabolism
AK004586	66868		integral to membrane	transport
NM_011156	19072	Prep	cytoplasm;nucleus	protein degradation
NM_025427	66214		cytoplasm;nucleus	cell cycle
U64606	17977	Ncoa1	cytoplasm	signaling

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BNS-18

Figure 37A



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_019794	56445	Dna1a2	membrane	translation
BC005603	68776	Taf11	transcription factor TFIID compl	transcription
NM_030685	28146	D3Ucla1	integral to membrane	unknown
NM_020588	57439		integral to membrane	unknown
NM_019707	12554	Cdh13	extracellular space; plasma membr	cell adh
NM_008149	14732	Gpam	integral to membrane; mitochondri	metabolism
AK016563	51885	D2Erd435e		ctk
NM_016807	53378	Sdcbp	adherent junction; cytoskeleton	signaling
AK013895	73078		mitochondrion	mbc
NM_025577	66462			unknown
AK004323	66201			unknown
NM_011201	19246	Pqpn1	integral to membrane; soluble fra	signaling ?
NM_008323	15929	Idh3g	isocitrate dehydrogenase complex	metabolism
NM_007460	11776	Ap3d	Golgi trans face	traffic
AK005710	67283	Slc25a19	integral to membrane; mitochondri	transport
NM_054046	23854	Defb	extracellular	signaling
NM_011287	19896	Rpl10a	ribosome	translation
NM_021337	108077	Skiv2l	nucleolus	translation
AK010555	69746			unknown
BC004653	67155		nucleoplasm	transcription
NM_013635	19027	Sypl	integral to membrane; secretory g	transport
NM_013869	29820	Tnfrsf19	extracellular space; integral to	signaling (receptor)
BC002157	100273	Osbpl9		lipid metabolism
NM_009404	21950	Tnfrsf9	integral to membrane; plasma memb	immune response
BC002240	66310		integral to membrane; nucleus	lipid metabolism
NM_010841	17771	Md5	cytoplasm	immune response
NM_009537	22632	Yy1	transcription factor complex	transcription
BC003288	28088	D10Wsu52e	DNA-directed RNA polymerase II,	unknown
AK018222	76161		integral to membrane	unknown
NM_026106	13486	Dr1	nucleus	transcription

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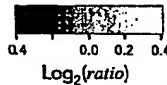
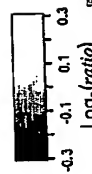


Figure 37 B

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	AK012535	101513	AI256456	membrane	unknown
	NM_015762	50493	Txnrd1	cytosol	transport
	NM_011200	19243	Ptp4a1	soluble fraction	signaling
	NM_013534	14789	Grcb	plasma membrane	misc
	NM_028770				unknown
	NM_008984	19274	Ptpm	extracellular space; integral to	signaling (receptor)
	NM_008135	14664	Slc6a9	integral to plasma membrane	transport
	AK014338	74840	Armet	extracellular space	tumor related
	NM_008078	14417	Gad2	extrachromosomal circular DNA	metabolism
	AK009402	74252	Arcp		unknown
	NM_025748	66757	Deadc1	mitochondrion	misc
	NM_010500	15939	Irf5	cytoplasm	Transcription
	NM_018779	54611	Pde3a	integral to membrane	signaling
	AK006107	74229		integral to membrane	signaling ?
	NM_013761	27364	Srr		metabolism
	NM_010883	17986	Ndph	extracellular space	signaling
	NM_010234	14281	Fos	cytoplasm; transcription factor c	tumor related
	NM_026612	68198	Ndufb2	mitochondrion	transport
	NM_007871	13430	Dnm2	coated pit	ctsk
	AF290542	192198	Lrrc4	microtubule	ctsk
	AK003556	66966	Trit1	extracellular space; mitochondrion	transcription ?
	NM_011328	20287	Sct	extracellular space	signaling (receptor)
	AK017282	71373			unknown
	AK013872	72397			unknown
	AK009325	79043	Tce1	cytoplasm	signaling
	Y12713	27282	Erv4		virus
	NM_010352	14840	Gsg1	voltage-gated calcium channel co	ion channel
	NM_026660	68294		integral to membrane	Transport
	NM_007930	13803	Enc1	cytoskeleton	ctsk
	AK002767	76509			signaling
	AK006837	73447	Wdr13	nucleus	unknown
	AF030001		a lot		misc
	NM_025718	66705	Dnase112	extracellular space	misc
	NM_019460	54650	Sfmbt1	chromatin	transcription
	NM_025479	66308			unknown
	NM_013790	27416	Abcc5	integral to plasma membrane	transport
	NM_026402	67841		inner plaque of spindle pole bod	unknown
	AK003818	66248	Alg5	endoplasmic reticulum; integral t	metabolism
	NM_008732	18174	Slc11a2	endomembrane system; endosome mem	transport
	NM_029417	75757			unknown
	NM_011503	20911	Stxbp2	cytoplasm	traffic
	NM_026304	67669			unknown
	AK006283	69435		inner plaque of spindle pole bod	ctsk
	NM_026539	68058	Chd11	nucleoplasm	cell cycle
	NM_008841	18709	Pik3r2	phosphoinositide 3-kinase comple	signaling
	NM_019781	56273	Pex14	integral to membrane; integral to	misc
	BC002302	106583	Rbm16		cell cycle
	NM_025918	52715	D11Etd707e		transport
	AK005862	74221			unknown
	AK015766	75083		26S proteasome	protein degradation
	AK003584	81018	Zfp313		unknown
	NM_023372	67671		cytosolic large ribosomal subuni	misc
	AK012848	72701			unknown
	BC008101	68939			signaling
	NM_008376	16205	Imap38	endoplasmic reticulum; integral t	unknown
	NM_011288	19935	Mrpl23	mitochondrial large ribosomal su	translation
	NM_008488	16801	Arhgef1		signaling (GEF)
	AK006427	69440		extracellular space	unknown
	NM_029814	76959		cytoplasm; nucleus	unknown
	BC004754	21351	Taldo1	cytoplasm	metabolism
	AK017628	70556		mitochondrial inner membrane	transport
	AK010448	71968			unknown
	NM_019402	54196	Pabpn1	mRNA cleavage stimulating factor	transcription

BNS-18
BNS-72
BNS-192
BS-18
BS-72
BS-192

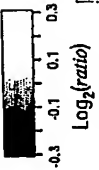
Figure 37-1



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_026660	68294		integral to membrane	transport
NM_007930	13803	Enc1	cytoskeleton	ctsk
AK002767	76509			signaling
NM_007871	13430	Dnm2	coated pit	ctsk
NM_025718	66705	Dnase1l2	extracellular space	misc
AF290542	192198	Lnc4	microtubule	ctsk
AK003818	66248	Alg5	endoplasmic reticulum;integral t	metabolism
AK006837	73447	Wdr13	nucleus	unknown
NM_025479	66308			unknown
NM_013790	27416	Abcc5	integral to plasma membrane	transport
NM_026402	67841		inner plaque of spindle pole bod	unknown
NM_029417	75757			unknown
NM_011503	20911	Sixbp2	cytoplasm	traffic

BNS-18
BNS-72
BNS-192
BS-18
BS-72
BS-192

Figure 37-2

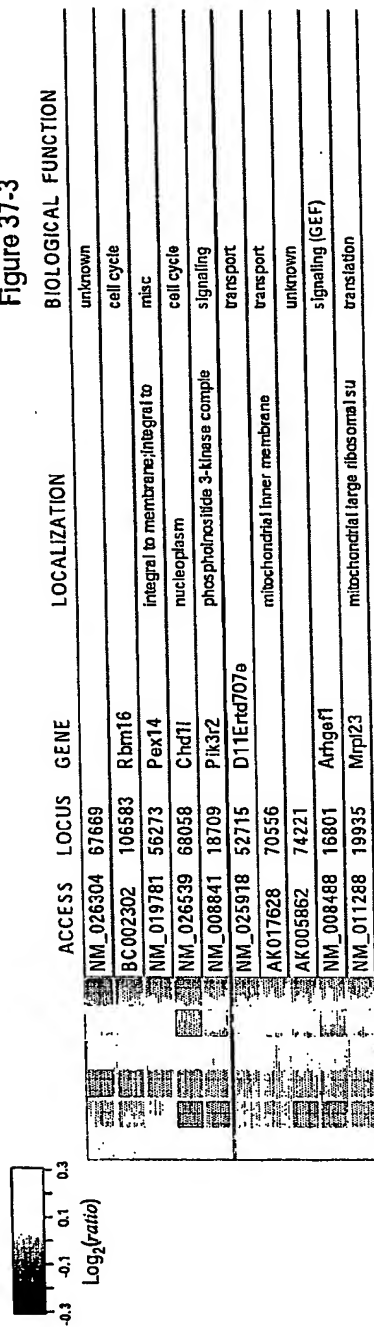


Log₂(ratio)

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_011328	20287	Sct	extracellular space	signaling (receptor)
	AK017282	71373			unknown
	AK003556	66966	Trit1	extracellular space;mitochondrio	transcription ?
	AK009325	79043	Tce1	cytoplasm	signaling
	NM_026660	68294		Integral to membrane	Transport
	AK013872	72397			unknown
	NM_010352	14840	Gsg1	voltage-gated calcium channel co	ion channel

BNS-18
BNS-72
BNS-192
BS-18
BS-72
BS-192

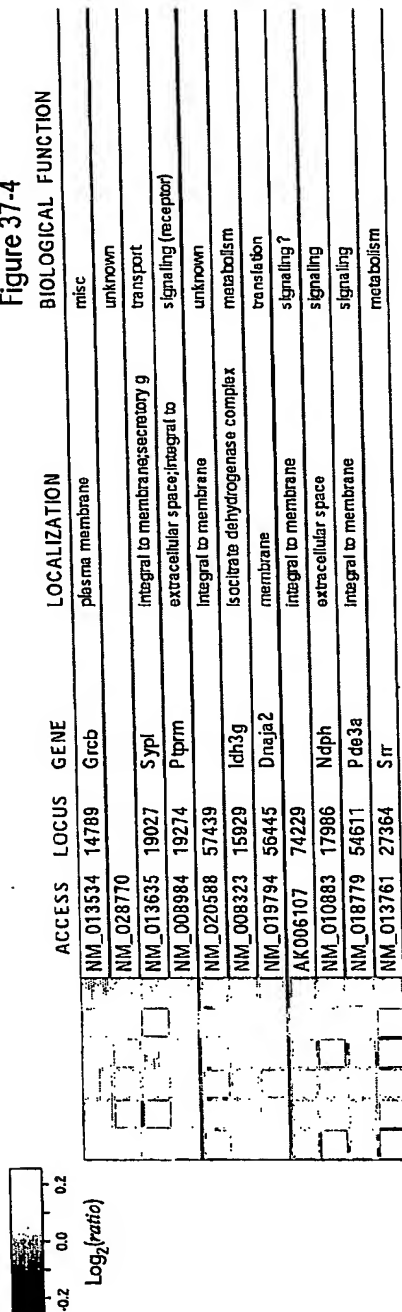
Figure 37-3



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_026304	67669			unknown
BC002302	106583	Rbm16		cell cycle
NM_019781	56273	Pex14	integral to membrane; integral to	misc
NM_026539	68058	Chd7l	nucleoplasm	cell cycle
NM_008841	18709	Plk3r2	phosphotransferase 3-kinase complex	signaling
NM_025918	52715	D11Erd707a		transport
AK017628	70556		mitochondrial inner membrane	transport
AK005862	74221			unknown
NM_008488	16801	Arhgef1		signaling (GEF)
NM_011288	19935	Mrpl23	mitochondrial large ribosomal subunit	translation

BS-192
BS-72
BS-18
BNS-192
BNS-72
BNS-18

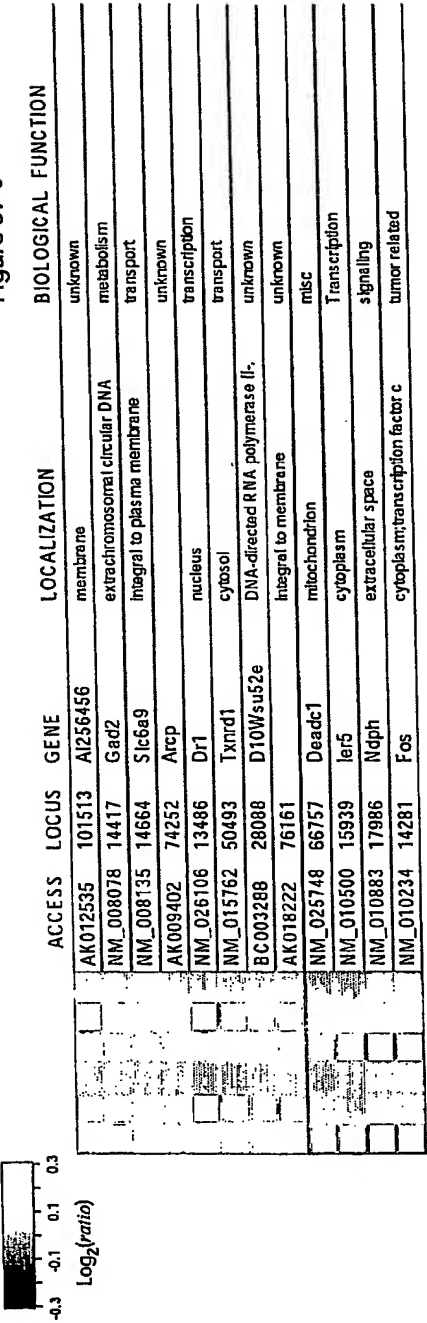
Figure 37-4



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_013534	14789	Grcb	plasma membrane	misc
NM_028770				unknown
NM_013635	19027	Sypl	integral to membrane;secretory g	transport
NM_008984	19274	Piprm	extracellular space;integral to	signaling (receptor)
NM_020588	57439		integral to membrane	unknown
NM_008323	15929	Idh3g	isocitrate dehydrogenase complex	metabolism
NM_019794	56445	Dnaja2	membrane	translation
AK006107	74229		integral to membrane	signaling ?
NM_010883	17986	Ndph	extracellular space	signaling
NM_018779	54611	Pde3a	integral to membrane	signaling
NM_013761	27364	Srr		metabolism

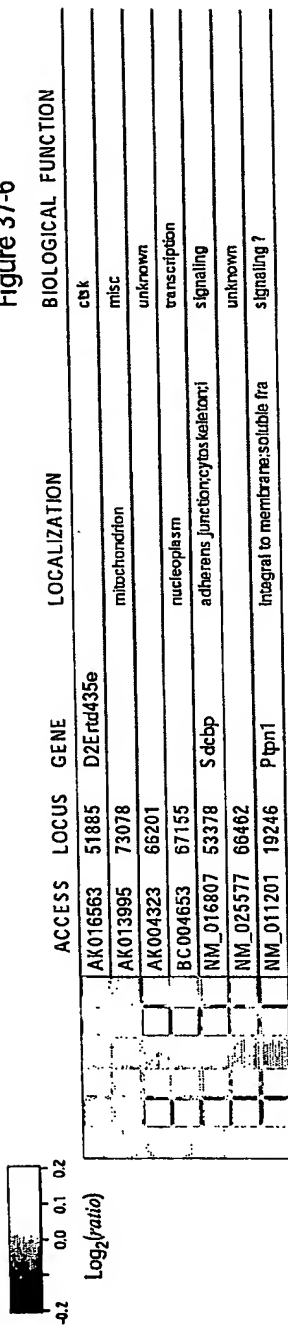
BNS-18
BNS-72
BNS-192
BS-18
BS-72
BS-192

Figure 37-5



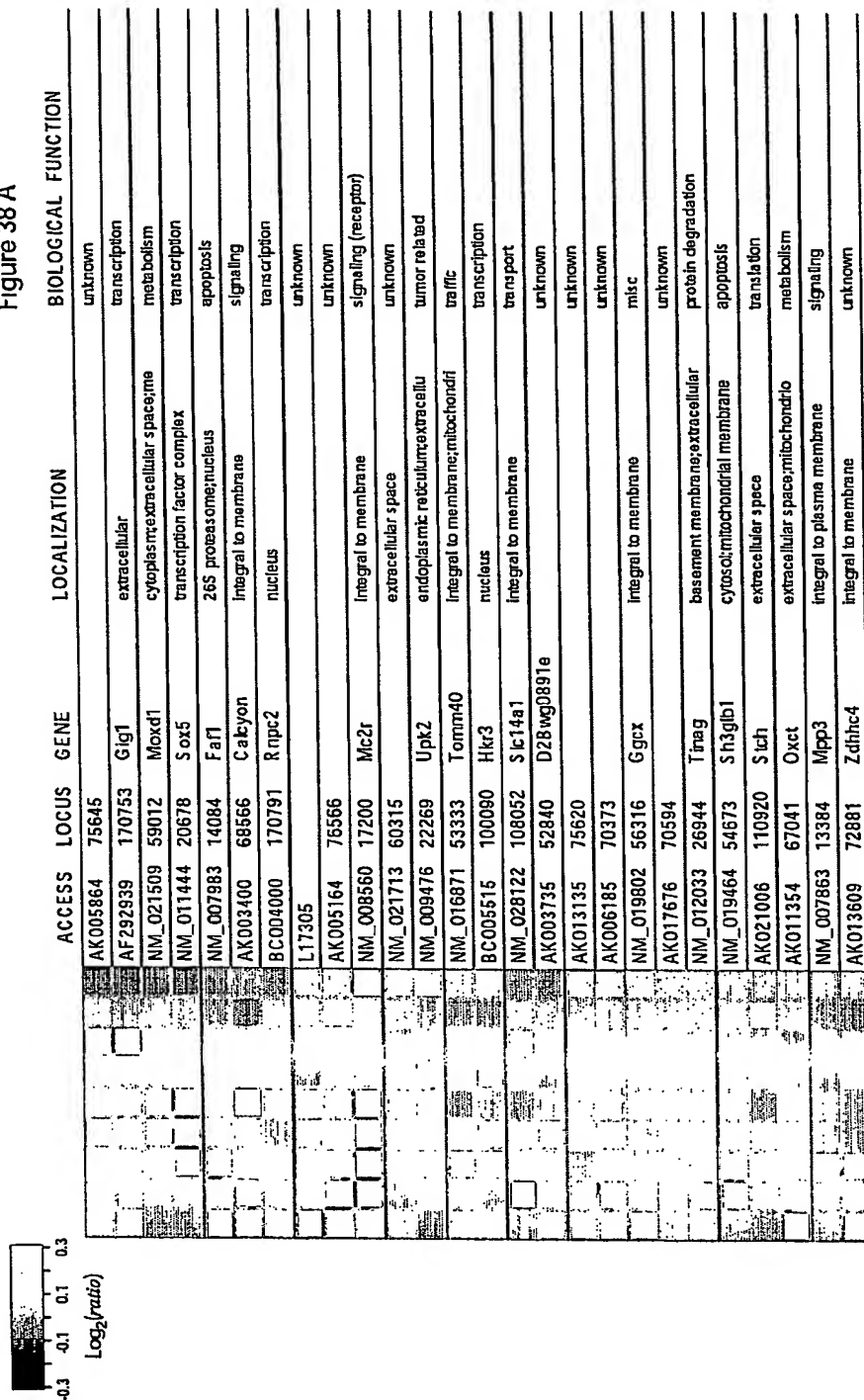
BNS-18
BNS-72
BS-18
BS-72
BS-192

Figure 37-6



BNS-18
BNS-72
BS-18
BS-72
BS-192

Figure 38 A



Colon-18
Colon-72
Colon-192
Breast-18
Breast-72
Breast-192
Lung-18
Lung-72
Lung-192

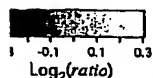
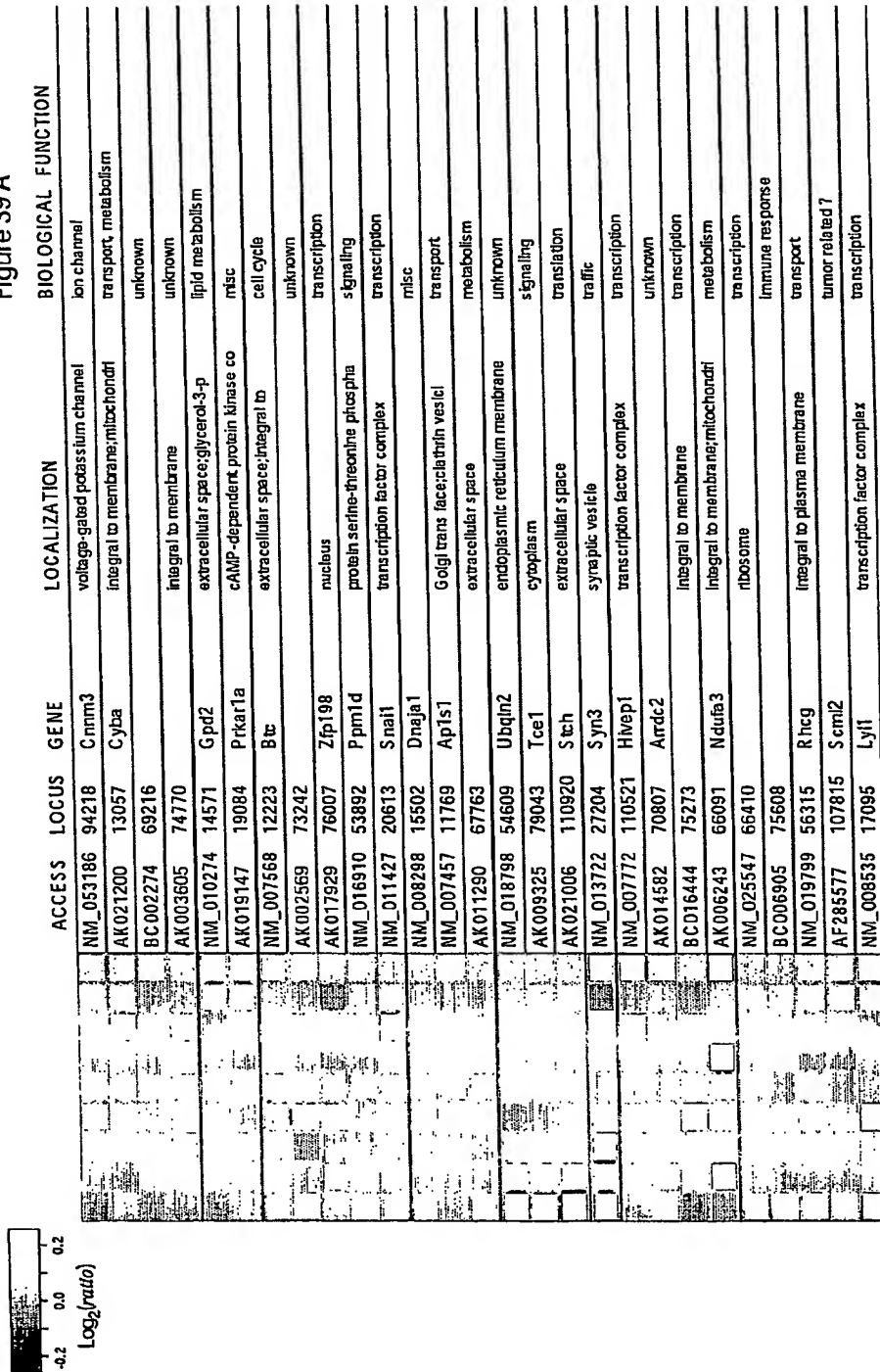


Figure 38 B

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_015806	50772	Mapk6	nucleosome	signaling
	AK003826	68530			unknown
	NM_025865	66952			unknown
	NM_010590	16475	Jub		signaling ?
	AK012109	72194			unknown
	NM_009717	11922	Neurod6	nucleus	transcription
	AK019863	77634			translation
	NM_023805	76257	Slc38a3	integral to plasma membrane	transport
	NM_025978	67120		cytoplasm	unknown
	AK010452	52666	D10Erid610a	plasma membrane	tumor related
	NM_009046	19698	Relb	transcription factor complex	transcription
	NM_008405	16415	Itgb2l	extracellular matrix; extracellular	cell adh
	BC003237	98985	Al462438	nucleus	transcription
	NM_030717	80907	Lactb	extracellular space; integral to	misc
	AK014763	76769		integral to membrane	unknown
	NM_026095	67332	Snrpd3	ribonucleoprotein complex; viral	misc
	NM_018802	55925	Syt8	integral to membrane; synaptic vesicle	transport
	AK016162				unknown
	NM_013647	20055	Rps16	cytosolic ribosome (sensu Eukaryota)	translation
	NM_009092	20068	Rps17	cytosolic small ribosomal subunit	translation
	NM_011197	19221	Ptgfrn	extracellular space; integral to	translation (receptor)
	AK014338	74840	Amet	extracellular space	tumor related
	NM_025460	66271		integral to membrane	unknown
	AK013604	72880			unknown
	NM_025563	66439			protein degradation ?
	NM_009035	19664	Rbpsuh	cytoplasm; nucleus	immune response
	BC002193	110279	Bcr		unknown
	AK018585	74558			unknown
	NM_011012	18389	Oprl	integral to plasma membrane	signaling (receptor)
	AK003809	76308		Golgi apparatus; endoplasmic reticulum	signaling
	NM_026908	69008			unknown
	AK020613	78672		integral to membrane	misc
	AK005063	110351	Rap1ga1		signaling
	NM_033042	85030	Tnfrsf25	extracellular space; integral to	signaling (receptor)
	NM_017394	53896	Slc7a10	integral to plasma membrane	transport
	NM_011793	23825	Banf1	integral to membrane; nucleus	misc
	NM_021543	18530	Pcdh8	integral to plasma membrane	cell adh
	AK007415	69046	Hbld2		unknown
	NM_026523	68039	Nmb	extracellular space	signaling (secreted)
	NM_008317	15586	Hyal1		metabolism
	NM_021433	58244	Stx6	Golgi apparatus; endosome; integral to	traffic
	NM_010064	13427	Dncl2	cytoplasmic dynein complex	ctsk
	NM_026082	67299	Dock7		cell cycle ?
	AK010262	71955			unknown
	AK005132	72003	Synpr	extracellular space; integral to	transport
	X74504	27883	D16H22S680E	chromatin	unknown
	AK009912	76467	Mrsb	extracellular space	misc
	NM_016789	53324	Npbx2	extracellular space; integral to	transport
	NM_011670	22223	Uchl1	cytoplasm	protein degradation
	NM_011529	21353	Tank	cytoplasm	signaling
	BC003457	108645		extrachromosomal circular DNA	misc
	NM_026693	93739	Gabarapl2	Golgi membrane; cytoskeleton	signaling
	NM_007688	12632	Cn2	cytoskeleton; nucleus	ctsk
	NM_020494	27225	Ddx24	cytoplasm	cell cycle
	NM_011428	20614	Snap25	plasma membrane	signaling
	AF127245	20591	Smcx	mitochondrion; nucleus	transcription
	AK013427	104884			signaling
	NM_022885	69048	Slc30a5	Golgi apparatus; apical plasma membrane	transport
	NM_010942	18198	Nsg1	Golgi apparatus; integral to membrane	signaling
	BC004062	234959	Crsp6		transcription
	AK014230	216877	Dhx33		unknown
	NM_025594	66492		ribosome	unknown
	NM_011622	20974	Syng3	integral to plasma membrane	unknown

Colon-18
Colon-72
Colon-192
Breast-18
Breast-72
Breast-192
Lung-18
Lung-72
Lung-192

Figure 39 A



Colon-18
Colon-72
Colon-192
Breast-18
Breast-72
Breast-192
Lung-18
Lung-72
Lung-192

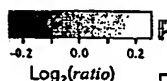
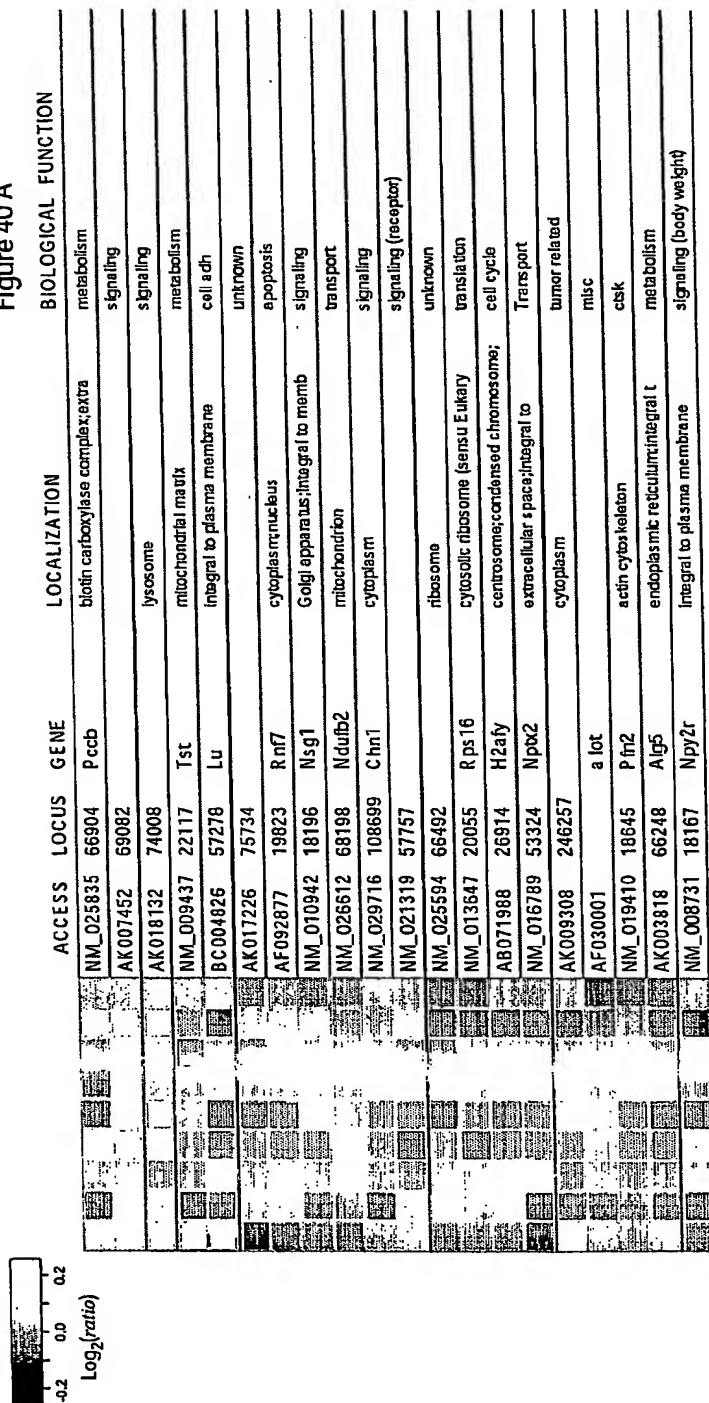


Figure 39 B

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	Y15910	54004	Diap2		misc
	NM_009974	13000	Csnt2a2	protein kinase CK2 complex	signaling
	NM_021888	60507	Qtrt1		misc
	NM_011025	18429	Oxt	extracellular space	signaling (secreted)
	NM_018804	229521	Syt11	integral to plasma membrane; syna	trans port
	NM_011040	18510	Pax8	transcription factor complex	transcription
	NM_019477	50790	Fac14	cytoplasm; integral to membrane	metabolism
	NM_016802	11848	Arha	cytoskeleton; cytosol	signaling
	AK016037	75212	Rnf121		protein degradation ?
	NM_011341	20318	Sdf4	Golgi apparatus; extracellular sp	misc
	NM_007527	12028	Bax	integral to membrane; mitochondri	apoptosis
	NM_009788	12307	Calb1	cytoplasm	misc
	NM_008098	14489	Mtpn		transcription
	AK005756	75454			metabolism
	AF232828	18134	Nova1	nucleus	transcription
	NM_016666	11632	Aip	cytoplasm	transcription
	BC017625	68047			unknown
	AK016299	75894			misc
	AK010890	72308	Brf1		transcription
	AK011747	17237	Mgm1	extracellular	apoptosis
	NM_010826	17540	Mrv1	endoplasmic reticulum membrane; i	trans port
	AF217484	57444	Isg20	intracellular	misc
	AK019863	77634			translation
	AK005862	74221			unknown
	NM_010771	17184	Mat3	nucleus	misc
	NM_025299	27366	Txn14	snRNP U5	transcription
	NM_018819	55951	Brp44l		unknown
	NM_018802	55925	Syt8	integral to membrane; synaptic ve	trans port
	AK011126	268490			unknown
	NM_008292	15488	Hsd17b4	peroxisome	lipid metabolism
	AK002696	28126	D13Wsu177e		unknown
	NM_010412	15184	Hdac5	cytoplasm; histone deacetylase co	cell cycle
	AK003400	68566	Calcyon	integral to membrane	signaling
	NM_009089	19789	Rit1	plasma membrane	signaling
	AK007703	27410	Abca3	integral to plasma membrane	misc
	AK017214	71323			tumor related
	NM_007591	12317	Calr	endoplasmic reticulum lumen; extr	cell adhesion
	AK005345	69029		extracellular space; integral to	unknown
	NM_008903	19012	Ppap2a	integral to plasma membrane; memb	metabolism
	NM_008229	15182	Hdac2	cytoplasm; histone deacetylase co	transcription
	AK018560	67556	Pigm		metabolism ?
	NM_008929	19107	Dnajc3	cytoplasm; extracellular space	translation
	AF072758	26588	Slc27a3	integral to membrane	trans port
	NM_009614	11490	Adam15	extracellular matrix; extracellul	protein degradation
	AB047820	104416	Bap1	nucleus	protein degradation
	NM_016789	53324	Nptx2	extracellular space; integral to	trans port
	NM_007930	13803	Enc1	cytoskeleton	ctsk
	NM_011622	21968	Tom1	Golgi stack; membrane	trans port
	NM_010595	16485	Kcna1	voltage-gated potassium channel	trans port
	NM_008974	19244	Ptp4a2	soluble fraction	signaling
	NM_019746	56330	Pdcd5	cytoplasm	apoptosis
	NM_013525	14455	Gas5		cell cycle
	NM_021548	59046	Arpp19	cytoplasm	trans port ?
	NM_009861	12540	Cdc42	filopodium	signaling
	NM_025987	67130	Ndufa6	mitochondrion	metabolism
	NM_026187	52231	D1Ertd161e		transcription ?
	AK007857	70061			metabolism
	NM_024475	79560	BC002236	proteasome regulatory particle (unknown
	AK003850	66151		extracellular matrix	ecm
	NM_019686	56506		synaptic vesicle	signaling
	AK004012	68708		early endosome	tumor related
	AK002744	68375	Ndufa8	respiratory chain complex I (sen	metabolism
	NM_022029	64011	Nrgn		signaling

Colon-18
Colon-72
Colon-192
Breast-18
Breast-72
Breast-192
Lung-18
Lung-72
Lung-192

Figure 40 A



Colon-18
Colon-72
Colon-192
Breast-18
Breast-72
Breast-192
Lung-18
Lung-72
Lung-192

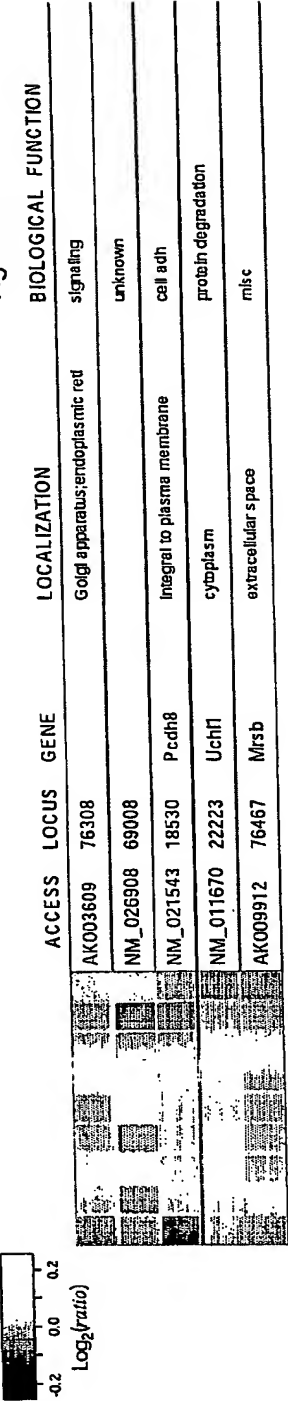


Figure 40 B

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	AK003863	26901	Deb1	extracellular	unknown
	NM_016908	53420	Syt5	integral to membrane;synapse;syn	traffic
	NM_025938	67053		nucleus	transcription ?
	NM_018757	54369	Nma5	extracellular space;microtubule	metabolism
	AK005033	52432	Ppp2r2d	protein phosphatase type 2A comp	signaling
	NM_025895	66999			unknown
	NM_008019	14225	Fkbp1a	cytoplasm;membrane	transport, translation
	AK013035	20621	Snn	integral to membrane	misc
	NM_023191	66317		heterotrimeric G-protein complex	signaling ?
	NM_019990	56018	Stard10		tumor related
	NM_022095	65112		integral to membrane	misc
	AY026384	192655	Cacna1i		transport
	NM_011588	21849	Trim28	chromatin;nucleus	transcription
	AK004778	74122		integral to membrane	unknown
	NM_023721	73834	Atp8v1d	hydrogen-transporting ATPase V1	Transport
	NM_007897	13591	Ebf1	nucleus	transcription
	L34876	11784	Apba2		signaling
	NM_008984	19274	Ptpm	extracellular space;integral to	signaling (receptor)
	AK016563	51885	D2Ert435e		ctsk
	NM_011231	19352	Rabggtb	cytoplasm	misc
	NM_008129	14630	Gclm		misc
	BC017532	105501	Abhd4		protein degradation
	NM_026446	56470	Rgs19	Golgi apparatus;heterotrimeric G	transcription
	AK007389	107686	Snrpd2	small nucleolar ribonucleoprotein	transcription
	NM_019679	57778	Fnni	cytosol	ctsk
	NM_016981	20544	Sic9a1	basolateral plasma membrane;extr	transport
	AK005164	76566			unknown
	NM_031404	83766	Act6	SWI-SNF complex;actin filament	ctsk
	AK020608	78425			unknown
	NM_020588	57439		integral to membrane	unknown
	AF062567	20687	Sp3	transcription factor complex	transcription
	NM_026047	72486		cytoplasm;extracellular space;in	unknown
	AK021008	110920	Stch	extracellular space	transcription
	NM_008480	18772	Lama1	basal lamina;extracellular space	ecm
	BC002240	66310		integral to membrane;nucleus	lipid metabolism
	AK018222	76161		integral to membrane	unknown
	NM_031249	83410	Cstf2c	mRNA cleavage stimulating factor	transcription
	NM_016909	53424	Tsnax	mitochondrial inner membrane;nuc	misc
	NM_013595	17192	Mbd3	chromatin;nucleus	transcription
	AK013604	72880			unknown
	NM_026218	67529		non-muscle myosin	unknown
	AK014338	74840	Armet	extracellular space	tumor related
	AK014579	74347			unknown
	NM_016893	53618	Fut8	Golgi apparatus;extracellular sp	misc
	BC006905	75608			immune response
	AK027262	235402	Lrrn6a	plasma membrane ?	cell adh ?
	AK010555	69746			unknown
	NM_026004	107569	Nt5c3	eukaryotic translation initiat	translation
	BC017627	66995		nucleolus	unknown
	NM_019718	56350	Arl3	Golgi apparatus	signaling
	AK010939	68196	Hsbp1	extracellular;nucleus	transcription
	NM_025668	66624		endoplasmic reticulum;integral c	misc
	NM_009727	11980	Atp8a1	integral to membrane	transport, metabolism
	NM_019794	56445	Dnaja2	membrane	translation
	BC005603	68776	Taf11	transcription factor TFIID compl	transcription
	AB039178				unknown
	NM_019790	56363	Tmaff2	integral to membrane	signaling
	AK010152	66556	Drap1	negative cofactor 2 complex	transcription
	AK009584	69639	Exosc8	exosome (RNase complex);nucleus	transcription
	NM_029457	75826	Senp2	nucleus	signaling
	NM_028122	108052	Sic14a1	integral to membrane	transport
	AK006273	69441			unknown
	NM_031392	83669	Wdr6		unknown

Colon-18
Colon-72
Colon-192
Breast-18
Breast-72
Breast-192
Lung-18
Lung-72
Lung-192

Figure 41



Colon-18
Colon-72
Colon-192
Breast-18
Breast-72
Breast-192
Lung-18
Lung-72
Lung-192

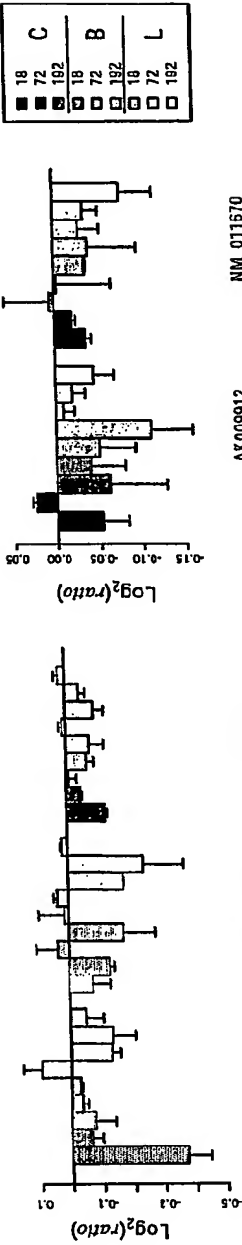
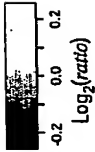


Figure 42

ACCESS LOCUS GENE			LOCALIZATION	BIOLOGICAL FUNCTION
Colon-18 Colon-192 Breast-18 Breast-72 Lung-18 Lung-72 Lung-192	NM_019802	56316	Ggcy	misc
	NM_009046	19698	Relb	transcription
	NM_008560	17200	Mc2r	signaling (receptor)
	NM_009476	22269	Upk2	tumor related
Colon-18 Colon-192 Breast-18 Breast-72 Lung-18 Lung-72 Lung-192	AK013604	72880		unknown
	AK003735	52840	D2Bwg0891e	unknown
	NM_023805	76257	Slc38a3	transport



Colon-18
Colon-192
Breast-18
Breast-72
Lung-18
Lung-72
Lung-192

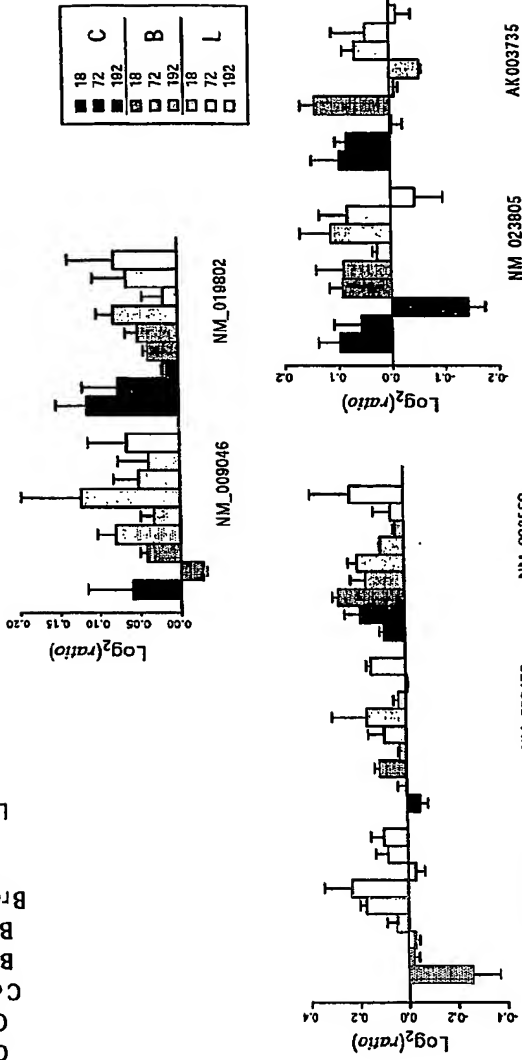


Figure 43

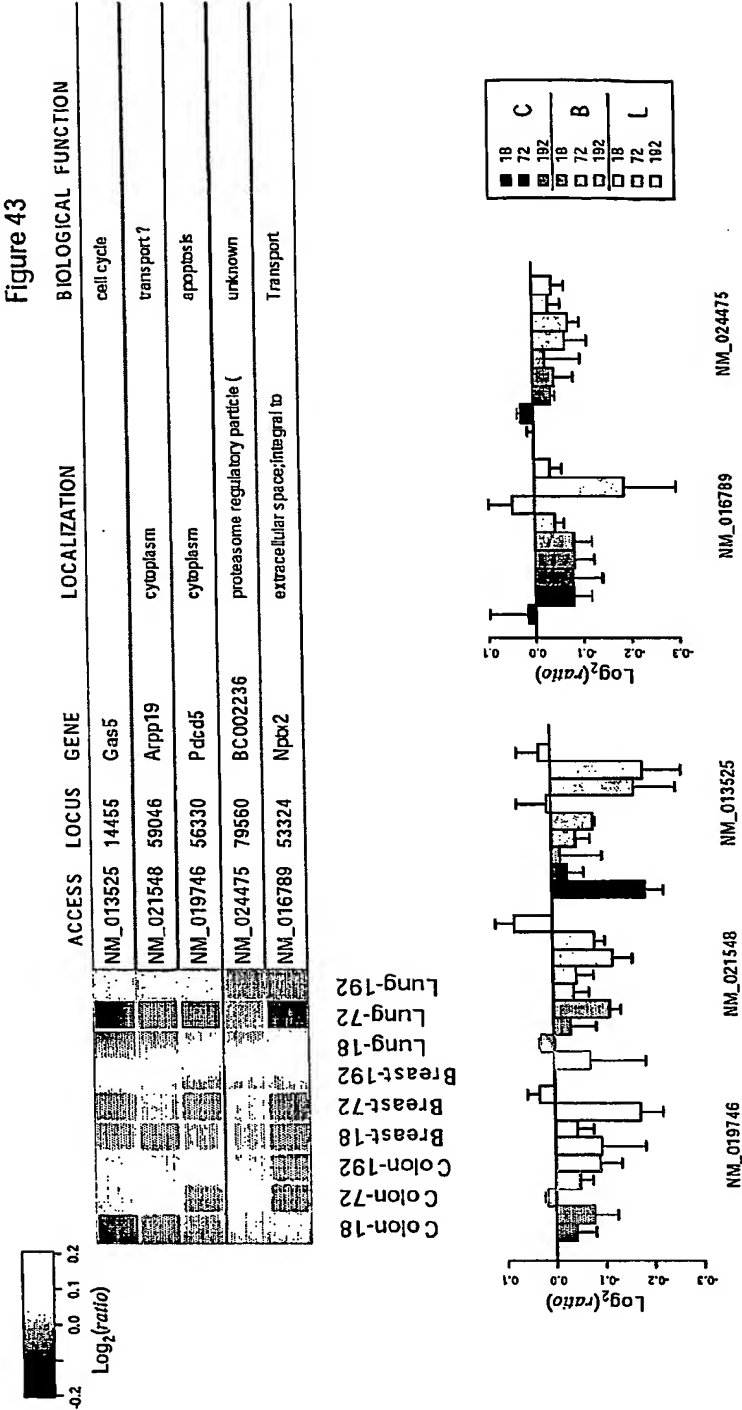
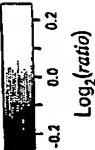


Figure 44

	ACCESS		LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_008228	15182	Hdac2		cytoplasm;histone deacetylase co	transcription
	AK018560	67556	Pigm			metabolism ?
	NM_007591	12317	Calr		endoplasmic reticulum lumen,extr	cell adhesion
	AK016037	75212	Rnf121			protein degradation ?
	NM_011040	18510	Pax8		transcription factor complex	transcription
	NM_019477	50790	Fach4		cytoplasm;integral to membrane	metabolism
	NM_010826	17540	Mv11		endoplasmic reticulum membrane;i	transport
	NM_010274	14571	Gpd2		extracellular space;glycerol-3-p	lipid metabolism
	AK011747	17237	Mgm1		extracellular	apoptosis



Colon-18
Colon-72
Colon-192
Breast-18
Breast-72
Breast-192
Lung-18
Lung-72
Lung-192

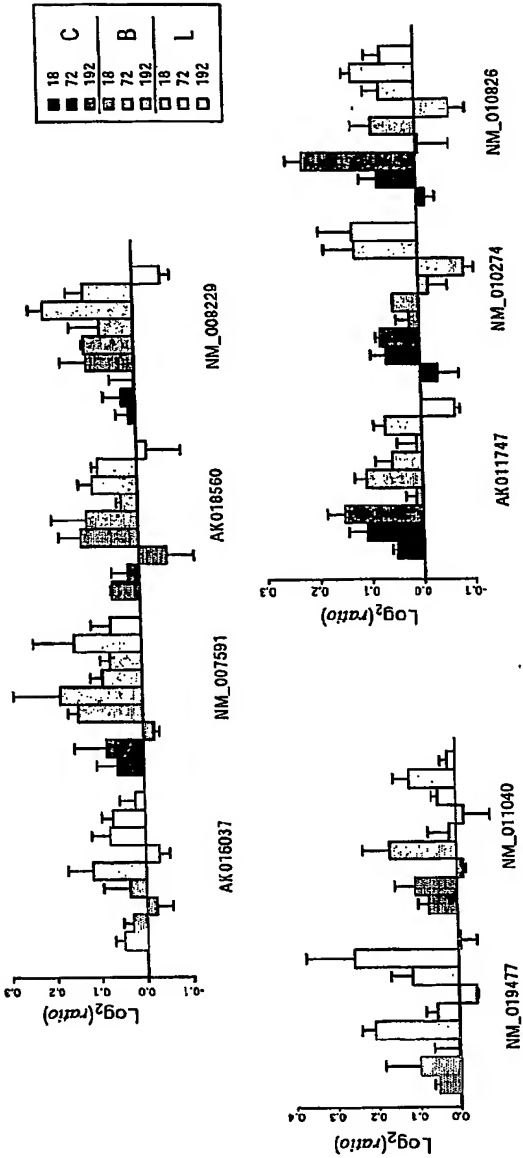
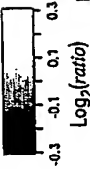


Figure 45

ACCESS			LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_026612			68198	Ndufb2	mitochondrion	transport
NM_016789			53324	Npx2	extracellular space;integral to	Transport
AK003818			66248	Alg5	endoplasmic reticulum;integral t	metabolism



Colon-18
Colon-72
Colon-192
Breast-18
Breast-72
Breast-192
Lung-18
Lung-72
Lung-192



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
BC005603	68776	Taf11	transcription factor TFIID compl	transcription
AK016563	51885	D2Ertd435e		csk
AK021006	110920	Stch	extracellular space	translation
BC017627	66995		nucleolus	unknown
AK014338	74840	Armet	extracellular space	tumor related
NM_026218	67529		non-muscle myosin	unknown
AK007389	107686	Smpd2	small nucleolar ribonucleoprotein	transcription
BC002240	66310		integral to membrane;nucleus	lipid metabolism
AK018222	75161		integral to membrane	unknown

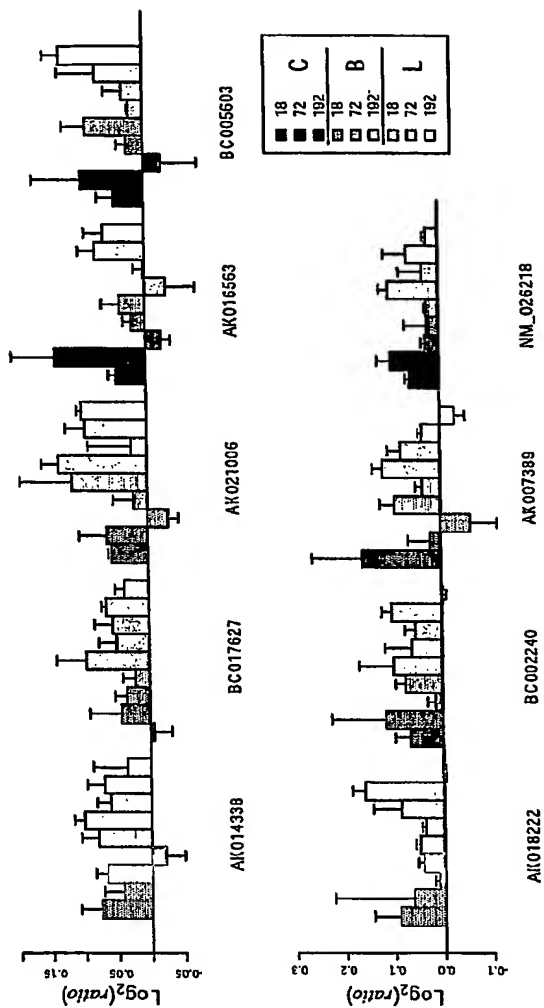
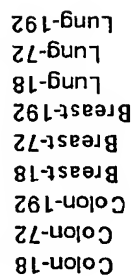


Figure 47

DIFFERENTIALLY EXPRESSED GENES
(SELECTED)

Breast Cancer			
Accession	Gene	Description	Region
NM_013465	Ahsa	alpha-2-HS-glycoprotein	prefrontal cortex
NM_007529	Bcan	brevican	hypothalamus
AK014338	Armet	arginine-rich, mutated in early stage tumors	midbrain
Colon Cancer			
Accession	Gene	Description	Region
NM_026523	Nmb	neuromedin B	prefrontal cortex
NM_007950	Ereg	epiregulin	prefrontal cortex
NM_009215	Sst	somatostatin	hypothalamus
NM_009129	Scg2	secretogranin II	hypothalamus
AK011747	Mgm1	matogunin, ring finger 1	hypothalamus
NM_008497	Lhb	luteinizing hormone beta	midbrain
NM_080639	Timp4	tissue inhibitor of metalloproteinase 4	midbrain
Lung Cancer			
Accession	Gene	Description	Region
NM_026523	Nmb	neuromedin B	prefrontal cortex
NM_054069	Pabpc1	prostatic steroid binding protein C1	prefrontal cortex
AF162224	Angptl3	angiopoietin-like 3	prefrontal cortex
NM_008734	Nrg3	neuregulin 3	hypothalamus
NM_009215	Sst	somatostatin	hypothalamus
NM_011025	Oxt	oxytocin	hypothalamus
NM_021704	Cxcl12	chemokine (C-X-C motif) ligand 12	hypothalamus
NM_011328	Sct	secretin	midbrain
NM_010883	Ndph	Norie disease homolog	midbrain

Figure 48
(page 1 of 3)
DRUG TARGETING CANDIDATES

A) Breast Cancer

Accession	Gene	Description	Class	Region
L32178	Sic6a1	solute carrier family 6 (neurotransmitter transporter, GABA), member 1	transport	prefrontal cortex
NM_008285	Hrh1	histamine receptor H 1	signaling (receptor)	prefrontal cortex
NM_018882	Gpr58	G protein-coupled receptor 58	signaling (receptor)	prefrontal cortex
NM_020518			immune response	
NM_023805	Sic38a3	RIKEN cDNA 2210413P10 gene	(receptor)	prefrontal cortex
AK011457	Slitrk5	solute carrier family 38, member 3	transport	prefrontal cortex
NM_016789	Nptx2	SLIT and NTRK-like family, member 5	misc	Hypothalamus
AK005887	Sic38a4	neuronal pentraxin 2	Transport	Hypothalamus
NM_023059	Al258711	solute carrier family 38, member 4	transport	Hypothalamus
		expressed sequence A1258711	signaling (receptor)	Hypothalamus
			immune response	
NM_008399	Ilgae	Integrin, alpha E, epithelial-associated	(receptor)	Hypothalamus
NM_020293	Cldn9	claudin 9	cell adh ?	Hypothalamus
NM_019772			protein degradation ?	Hypothalamus
NM_007874	Dp1	RIKEN cDNA 1110004F10 gene	tumor related	Hypothalamus
AJ276505	Tnfrsf22 ?	deleted in polyposis 1	signaling (receptor)	Hypothalamus
NM_007495	Astn1	tumor necrosis factor receptor superfamily, member 22 ?	misc	Hypothalamus
NM_008377	Lrig1	astrotactin 1	tumor related	Hypothalamus
		leucine-rich repeats and immunoglobulin-like domains 1		
NM_011352	Sema7a	soma domain, immunoglobulin domain (Ig), and GPI membrane anchor, (semaphorin) 7A	signaling (receptor)	Midbrain
NM_011929	Cicn6	chloride channel 6	transport	Midbrain

Figure 48
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B) Colon Cancer

Accession	Gene	Description	Class	Region
NM_054046	Defb8	differentially expressed in FDCP 8	signaling (receptor)	prefrontal cortex
NM_023500	Xth	McLeod syndrome gene homolog	transport	prefrontal cortex
NM_009320	Sic6a6	solute carrier family 6 (neurotransmitter transporter, taurine), member 6	transport	prefrontal cortex
NM_011176	Stt14	suppression of tumorigenicity 14 (colon carcinoma)	cell adh	prefrontal cortex
NM_026413	Sic6b1	solute carrier organic anion transporter family, member 6b1	transport	prefrontal cortex
NM_026413	Sic6b1	solute carrier organic anion transporter family, member 6b1	transport	prefrontal cortex
NM_029460		RIKEN cDNA 4930562N12 gene	signaling (receptor)	prefrontal cortex
AK012847		RIKEN cDNA 2810031L11 gene	unknown (receptor)	prefrontal cortex
NM_007583	Caeng2	calcium channel, voltage-dependent, gamma subunit 2	ion channel	Hypothalamus
D86949	Pixra2	plexin A2	signaling (receptor)	Hypothalamus
NM_010781	Mcp16	mast cell protease 6	protein degradation	Midbrain
NM_009730	Atrn	attractin	cell adh (receptor)	Midbrain
AF090736	Irs2	insulin receptor substrate 2	signaling (receptor)	Midbrain
NM_028122	Sic14a1	solute carrier family 14 (urea transporter), member 1	transport	Midbrain
M34173	Cry	complement receptor related protein	immune response	Midbrain
AK004586		RIKEN cDNA 1200003O06 gene	(receptor)	Midbrain
U22015	Rwip110	retinoid X receptor interacting protein 110	transport	Midbrain
			signaling (receptor)	Midbrain

Figure 48
(page 3 of 3)

C) Lung Cancer

Accession	Gene	Description	Class	Region
NM_010149	Epor	erythropoietin receptor	signaling (receptor)	prefrontal cortex
NM_019967	Dccr1	deleted in bladder cancer chromosome region candidate 1 (human)	misc	prefrontal cortex
NM_021543	Pcdh8	protocadherin 8	cell adh	prefrontal cortex
NM_011012	Optf	optfold receptor-like	signaling (receptor)	prefrontal cortex
NM_008424	Kcne1	potassium voltage-gated channel, Isk-related subfamily, member 1	ion channel	prefrontal cortex
AF083876	Emp2	epithelial membrane protein 2	transport	prefrontal cortex
NM_021550		RIKEN cDNA 1500002111 gene	misc	prefrontal cortex
NM_013596	Mc5r	melanocortin 5 receptor	signaling (receptor)	prefrontal cortex
NM_007836	Epha4	Eph receptor A4	signaling (receptor)	Hypothalamus
NM_030716	Kcnip2	Kv channel-interacting protein 2	ion channel	Hypothalamus
NM_007761	Crep	calcitonin gene-related peptide-receptor component protein	signaling (receptor)	Hypothalamus
X81365	Cntr2	contactin 2	cell adh	Hypothalamus
NM_019799	Rhog	Rhesus blood group-associated C glycoprotein	transport	Hypothalamus
NM_008737	Nrp	neuropilin	cell adh	Hypothalamus
NM_025660		RIKEN cDNA 0610008003 gene	Transport	Midbrain
AK006107		RIKEN cDNA 1700019B16 gene	signaling (receptor)	Midbrain
NM_008984	Ptpm	protein tyrosine phosphatase, receptor type, M	signaling (receptor)	Midbrain
NM_008135	Slc8a9	solute carrier family 6 (neurotransmitter transporter, glycine), member 9	transport	Midbrain
AK012535	A1256456	expressed sequence A1256456	unknown	Midbrain
NM_011201	Ptpn1	protein tyrosine phosphatase, non-receptor type 1	signaling (receptor)	Midbrain

Figure 49
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Accession	Gene	Region	Tumor	Time	Ratio array	p-value array	Fabs ratio time	p-value real time	Validated
AK004714	RIKEN cDNA 1200011M11 gene	Hypothalamus	Breast	18	-0.172 ± 0.020	0.014	-0.053 ± 0.284	0.870	No
				72	-0.239 ± 0.076	0.048	-0.226 ± 0.103	0.004	Yes
				192	0.002 ± 0.052	0.969	-0.137 ± 0.277	0.669	
NM_007591	calreticulin	Hypothalamus	Breast	18	0.141 ± 0.023	0.003	0.013 ± 0.242	0.961	No
				72	0.181 ± 0.105	0.226	-0.153 ± 0.231	0.577	
				192	0.085 ± 0.028	0.048	ND	ND	
NM_011622	target of myb1 homolog (TOM1)	Hypothalamus	Breast	18	-0.140 ± 0.006	0.029	-0.488 ± 0.191	0.017	Yes
				72	-0.218 ± 0.017	0.049	-0.278 ± 0.182	0.005	Yes
				192	0.003 ± 0.003	0.376	ND	ND	
NM_013615	outer dense fiber of sperm tails 2	Hypothalamus	Breast	18	0.001	ND	ND	ND	
				72	-0.177 ± 0.031	0.010	0.183 ± 0.193	0.302	No
				192	-0.139 ± 0.046	0.092	ND	ND	
NM_011202	protein tyrosine phosphatase, non-receptor type 11	Hypothalamus	Lung	18	0.073 ± 0.020	0.035	0.386 ± 0.253	0.040	Yes
				72	-0.018 ± 0.016	0.395	-0.562 ± 0.592	0.271	
				192	-0.015 ± 0.015	0.427	ND	ND	
NM_027722	RIKEN cDNA 4933436C10 gene	Hypothalamus	Lung	18	-0.030 ± 0.005	0.023	ND	ND	
				72	-0.052 ± 0.015	0.043	0.059 ± 0.236	0.826	No
				192	ND	ND	ND	ND	
X81355	contactin 2	Hypothalamus	Lung	18	0.234 ± 0.003	0.009	0.491 ± 0.314	0.036	Yes
				72	0.046 ± 0.026	0.221	-0.058 ± 0.197	0.705	
				192	-0.046 ± 0.069	0.627	ND	ND	

Figure 49
Page 2 of 2

AF408435	protein regulator of cytokinesis 1	Breast	Midbrain	18	0.147 ± 0.050	0.100	0.113 ± 0.164	0.528	No
				72	0.156 ± 0.031	0.037	0.269 ± 0.150	0.215	
				192	0.120 ± 0.110	0.473	ND	ND	
AK003524	RIKEN cDNA 1110007C02 gene	Breast	Midbrain	18	-0.502 ± 0.051	0.010	0.162 ± 0.193	0.448	No
				72	-0.098	ND	-0.162 ± 0.239	0.568	
				192	0.277 ± 0.002	0.003	ND	ND	
NM_007896	growth arrest and DNA-damage-inducible 45 alpha	Breast	Midbrain	18	-0.149 ± 0.019	0.008	0.159 ± 0.242	0.546	No
				72	-0.201	ND	0.245 ± 0.113	0.163	
				192	0.029	ND	ND	ND	
NM_008889	protein phosphatase 1, regulatory (inhibitor) subunit 14B	Breast	Midbrain	18	-0.109 ± 0.027	0.153	-0.080 ± 0.112	0.512	No
				72	-0.185 ± 0.005	0.018	-0.039 ± 0.299	0.907	
				192	-0.025 ± 0.042	0.590	ND	ND	
NM_019551	Traf and Tnf receptor associated protein	Breast	Midbrain	18	-0.120 ± 0.004	0.023	0.237 ± 0.228	0.357	No
				72	-0.138 ± 0.050	0.225	0.270 ± 0.398	0.567	
				192	-0.144 ± 0.023	0.026	-0.177 ± 0.309	0.626	No
AK009856	RIKEN cDNA 2310046M24 gene	Breast	Prefrontal cortex	18	-0.052 ± 0.082	0.593	ND	ND	
				72	0.113 ± 0.081	0.296	0.488 ± 0.364	0.116	
				192	0.163 ± 0.0003	0.001	-0.277 ± 0.282	0.141	No
NM_009717	neurogenic differentiation 6	Lung	Prefrontal cortex	18	0.217 ± 0.082	0.078	0.092 ± 0.055	0.193	No
				72	0.098 ± 0.018	0.033	0.023 ± 0.145	0.884	
				192	-0.026 ± 0.018	0.245	ND	ND	

Access	Locus	Gene
AB020542	170938	LOC170938
AB035381	170759	Cgi152
AB039933	70335	Dp11
AB041586	76454	
AB049650	75398	Mrpl32
AB056100	66902	Mtap
AF039839		
AF059175	13867	ErbB3
AF061934	50782	Rgs11
AF140708	21462	Tcp10c
AF168680	50766	Crim1
AF179996	20362	Sept8
AF193608	60364	Donson
AF201662	17202	Mc4r
AF224264	233908	Fus
AF229644	54646	DXImx48e
AF276974	192201	
AF282272	258740	MOR171-12
AF282304	258276	MOR224-12
AF296075	81896	Wdr10
AF303106	110012	Gtrgeo22
AF317517	77889	
AF326960	21380	Tbx1
AF342737	67378	Bbs2
AF343581	72322	Xpo5
AF369902	68291	Mto1
AF411834	20620	Snk
AF440737	69362	
AF448804	72162	Dhx36
AJ007376	26900	Ddx3y
AJ133536	20955	Sybl1
AJ223782	235072	Sept7
AJ246002	50850	Spg4
AJ252147	66413	
AJ308965	101739	Psip2
AJ400622	230157	Tmeff1
AK002252	68323	
AK002293	12793	Cnih
AK002297	71667	
AK002298	71660	Rarres2
AK002309	68327	
AK002386	109801	Glo1
AK002387	76073	
AK002637	66689	Btbd5
AK002704	68365	Rab14
AK002757	56282	Mrpl12
AK002842	68386	
AK003004	18111	Nnat
AK003132	75406	Ndufs7
AK003209	75725	
AK003358	68576	
AK003450	74319	
AK003542	73728	
AK003571	68507	Ppfia4
AK003609	76308	

Figure 50-1

AK003794	97541 Qars
AK003819	74777
AK003820	76295 Atp11b
AK004041	68730
AK004090	73747
AK004139	68735
AK004191	66061
AK004472	68891
AK004559	66871 Cpne8
AK004627	74119
AK004676	67459
AK004814	97541 Qars
AK004849	52428 Rhpn2
AK005001	74159 Acbd5
AK005010	71768
AK005015	246277 Csad
AK005035	71775
AK005045	20637 Snrp70
AK005063	110351 Rap1ga1
AK005136	74189 Phactr3
AK005146	76499 Clasp2
AK005230	76338
AK005314	19342 Rab4b
AK005423	76507 Abp1
AK005609	69315
AK006110	67080
AK006185	70373
AK006211	67630 Samd8
AK006273	69441
AK006650	73296 Rhobtb3
AK006739	22217 Usp12
AK006923	73476
AK007077	73572
AK007310	76669
AK007355	69035 Zdhhc3
AK007419	69047
AK007503	69101
AK007505	68118
AK007617	69127
AK007766	76510
AK007864	67893
AK007884	66229
AK008537	67035
AK008734	72349 Dusp3
AK008736	70153
AK008955	70397
AK009135	73919
AK009163	76730
AK009251	50529 Mrps7
AK009282	71897
AK009365	76437 D11Bwg0414e
AK009522	71901
AK009749	69654
AK009813	269423
AK009886	71923
AK009888	69655

Figure 50-2

AK009937	71941
AK010005	71924 Tube1
AK010152	66556 Drap1
AK010310	67755 Ddx47
AK010328	69702 Ndufaf1
AK010387	69748
AK010466	76484
AK010752	73694
AK010963	70312
AK011036	66230 Mrps28
AK011064	70235
AK011234	72459
AK011330	72124
AK011531	67788
AK011540	71807
AK011541	71810
AK011725	69928
AK011832	72465 Zfp131
AK011853	72475 Ssbp3
AK011862	28018 D7Wsu128e
AK011896	72486
AK011950	67157
AK012211	70998
AK012283	72569
AK012726	28036 D3Wsu161e
AK012740	66315
AK012843	72668
AK012847	72674
AK012852	67197
AK013022	69227
AK013197	66390
AK013276	66329
AK013280	67229
AK013304	52132 D7Ert462e
AK013322	72774 Neil1
AK013379	78771
AK013427	104884
AK013465	12348 Car11
AK013595	72871
AK013596	72929
AK013604	72880
AK013690	19328 Rab12
AK013710	73051
AK013727	14397 Gabra4
AK013788	73047
AK013965	68969
AK013995	73078
AK014175	73205
AK014327	244672
AK014393	74025
AK014396	74020 Cpne4
AK014435	55951 Brp44l
AK014446	52118 D7Ert458e
AK014500	77047
AK014610	74352
AK014652	74574

Figure 50-3

AK014695	71633
AK014735	67392
AK014764	74600
AK014811	75801
AK014830	80708 Pacsin3
AK014834	75778
AK014839	51938 D3ErtD789e
AK015338	231672
AK015457	74655
AK015536	106248
AK015559	74946
AK015640	70646
AK015650	67509
AK015717	75102
AK015898	75141 Rasd2
AK015929	70939
AK015957	75207
AK016083	75311
AK016128	75359
AK016247	18640 Pfkfb2
AK016267	65103 Arl6lp6
AK016282	75863
AK016481	74356
AK016545	74390
AK016597	71027
AK016612	74426
AK016714	74405
AK016715	76799
AK016792	
AK016857	71074
AK016870	71176 Fbxo24
AK016917	74446
AK016936	71075
AK017014	71281
AK017214	71323
AK017294	71331
AK017442	71453
AK017460	71448
AK017493	67974
AK017578	18189 Nr1h1
AK017787	66663 Ube1dc1
AK017798	70676
AK017836	76742 Snx27
AK018132	74008
AK018146	17344 Miz1
AK018159	18549 Pcsk2
AK018254	50758 Fbxo13
AK018389	71492 Bbs7
AK018520	71544
AK018573	71517
AK018646	75761
AK018662	74549
AK018849	66510
AK019095	78887
AK019458	70122 Mlt3
AK019466	77626

Figure 50-4

AK019515	77041
AK019527	78903 Wmip1
AK019542	68259
AK019549	68187
AK019589	78109
AK019600	78795
AK019665	78174
AK019809	78051
AK019863	77634
AK019878	78935
AK019886	68151
AK019915	78271
AK019934	70255
AK019985	77521
AK020104	77733
AK020492	77305
AK020724	77578 Bcl9
AK021021	16423 Cd47
AK021076	67287
AK021099	77462
AK021208	77422
AK021227	78531
AL078630	
AY044265	235339 Dlat
BC002198	102334 Ankrd10
BC002199	211556 BC002199
BC002226	170833 Hook2
BC002231	67134 Nol5a
BC002298	19283 Ptpnz1
BC003247	229725 Mclc
BC003479	216820
BC003843	70356 St13
BC003901	107951 Cdk9
BC003914	58875
BC003932	67278
BC003957	78408
BC003988	83486 Rbm5
BC004020	11603 Agm
BC004581	98432 Al836256
BC004640	97064
BC004653	67155
BC004690	216274 BC004690
BC004739	213211 Rnf26
BC004766	71799 Ptd1
BC004771	
BC004831	228608 Smox
BC005568	75689
BC005598	98221 Ga17
BC005658	69957 Cdc16
BC005659	171388 Bnpl
BC005672	230784 Sesn2
BC005744	72144 Slc37a3
BC005786	70579
BC005792	170789 Pte1
BC006834	12226 Btg1
BC008101	68939

Figure 50-5

BC009141	75062 Sl3a3
BC011091	109815 H47
BC012975	14526 Gcg
BC013502	217353 Tmc6
BC016080	103963 Rpn1
BC016210	67017
BC016398	19079 Prkab1
BC016616	76022
BC017625	68047
BC018220	69190
D50060	18553 Pace4
D50872	19204 Ptafr
D83203	19271 Ptprij
K02138	
L17305	
M60510	83796 Smarcd2
NM_007377	11302 Aatk
NM_007393	11461 Actb
NM_007440	11684 Alox12
NM_007474	11833 Aqp8
NM_007502	11933 Atp1b3
NM_007531	12034 Bcap37
NM_007564	12192 Zfp36l1
NM_007581	12297 Cacnb3
NM_007583	12300 Cacng2
NM_007600	12333 Capn1
NM_007618	12401 Serpina6
NM_007622	12412 Cbx1
NM_007624	12417 Cbx3
NM_007668	12568 Cdk5
NM_007674	12592 Cdx4
NM_007688	12632 Cfl2
NM_007693	12652 Chga
NM_007709	12705 Cited1
NM_007728	12810 Coch
NM_007828	13144 Dapk3
NM_007841	13209 Ddx6
NM_007862	13383 Dlgh1
NM_007868	13405 Dmd
NM_007898	13595 Ebp
NM_007899	13601 Ecm1
NM_007922	13712 Elk1
NM_007933	13808 Eno3
NM_007980	14079 Fabp2
NM_008014	14208 Ppm1g
NM_008015	14209 Fin14
NM_008033	14272 Fnta
NM_008072	14403 Gabrd
NM_008076	14409 Gabrr2
NM_008091	14462 Gata3
NM_008113	14570 Arhgdig
NM_008115	14586 Gfra2
NM_008133	14661 Glud
NM_008138	14678 Gnai2
NM_008142	14688 Gnb1
NM_008160	14775 Gpx1

Figure 50-6

NM_008161	14778 Gpx3
NM_008226	15166 Hcn2
NM_008230	15186 Hdc
NM_008233	15193 Hdgfrp2
NM_008297	15500 Hsf2
NM_008301	15512 Hspa2
NM_008307	15547 Htf9c
NM_008350	16156 Il11
NM_008358	16169 Il15ra
NM_008403	16413 Itgb1bp1
NM_008418	16491 Kcna3
NM_008451	16594 Klc2
NM_008550	17160 Man2b2
NM_008580	26408 Map3k5
NM_008590	17294 Mest
NM_008606	17385 Mmp11
NM_008707	18107 Nmt1
NM_008712	18125 Nos1
NM_008733	18175 Nrap
NM_008744	18208 Ntn1
NM_008761	18301 Fxyd5
NM_008771	18436 P2rx1
NM_008797	18563 Pcx
NM_008858	18760 Prkcm
NM_008871	18787 Serpine1
NM_008896	330260 Pon2
NM_008915	19057 Ppp3cc
NM_008920	19074 Prg2
NM_008946	19175 Psmb6
NM_008974	19244 Ptp4a2
NM_008990	19294 Pvrl2
NM_009011	19359 Rad23b
NM_009020	19374 Rag2
NM_009025	19414 Rasa3
NM_009029	19645 Rb1
NM_009046	19698 Relb
NM_009055	19724 Rfx1
NM_009069	19769 Rlt1
NM_009070	19826 Rnps1
NM_009104	20135 Rrm2
NM_009106	20166 Rtkn
NM_009130	20255 Scg3
NM_009136	20284 Scrg1
NM_009255	20720 Serpine2
NM_009261	20744 Spnr
NM_009273	20813 Srp14
NM_009276	20819 Srst
NM_009282	20842 Stag1
NM_009320	21366 Slc6a6
NM_009357	21766 Tex261
NM_009460	22218 Ubl1
NM_009467	22238 Ugt2b5
NM_009472	22253 Unc5c
NM_009503	269523 Vcp
NM_009539	22637 Zap70
NM_009551	22682 Zfp216

Figure 50-7

NM_009582	26404 Map3k12
NM_009624	11515 Adcy9
NM_009688	11798 Birc4
NM_009707	11856 Arhgap6
NM_009732	11998 Avp
NM_009748	12068 Bet1
NM_009806	12361 Cask
NM_009831	12450 Ccng1
NM_009846	12484 Cd24a
NM_009848	12495 Entpd1
NM_009881	12593 Cdyl
NM_009895	12700 Cish
NM_009950	12905 Cradd
NM_010073	13481 Dpm2
NM_010101	13610 Edg3
NM_010195	14160 Gpr49
NM_010243	14348 Fut9
NM_010254	14428 Galr2
NM_010255	14431 Garnt
NM_010313	14697 Gnb5
NM_010358	14862 Gstm1
NM_010362	14873 Gsto1
NM_010417	15203 Heph
NM_010509	15976 Ifnar2
NM_010577	16402 Itga5
NM_010609	16530 Kcnk7
NM_010638	16601 Bteb1
NM_010710	16870 Lhx2
NM_010798	17319 Mif
NM_010799	17330 Minpp1
NM_010911	18041 Nfs1
NM_010934	18166 Npy1r
NM_010950	18223 Numb1
NM_011012	18389 Oprl
NM_011018	18412 Sqstm1
NM_011021	18420 Otp
NM_011025	18429 Oxt
NM_011051	18570 Pdcd6
NM_011126	18843 Plunc
NM_011154	
NM_011177	19144 Prss18
NM_011192	19192 Psme3
NM_011251	19654 Rbm6
NM_011256	19679 Rdgb2
NM_011334	12727 Clcn4-2
NM_011522	20974 Syngn3
NM_011601	21893 Tlm
NM_011643	22063 Trpc1
NM_011791	23808 Ash2l
NM_011804	
NM_011828	23908 Hs2st1
NM_011855	23963 Odz1
NM_011870	23991 Cib1
NM_011908	24109 Ubl3
NM_011921	26358 Aldh1a7
NM_011949	26413 Mapk1

Figure 50-8

NM_011961	26432 Plod2
NM_011962	26433 Plod3
NM_011990	26570 Slc7a11
NM_012019	26926 Pcdcd8
NM_012045	26971 Pla2g2f
NM_012048	27015 Polk
NM_013556	15452 Hprr
NM_013596	17203 Mc5r
NM_013614	18263 Odc
NM_013625	18472 Pafah1b1
NM_013641	19216 Ptger1
NM_013736	27224 Tceb3
NM_013754	27356 Ins16
NM_013759	27361 Sepr
NM_013789	27414 Gnefr
NM_013841	22365 Vps45
NM_013867	29815 Bcar3
NM_013909	30840 Fbx16
NM_013916	30929 AL022832
NM_013932	30959 Ddx25
NM_015762	50493 Txnrd1
NM_015830	50817 Solh
NM_016664	50994 Mata2
NM_016692	16319 Incenp
NM_016703	50907 Preb
NM_016719	50915 Grb14
NM_016737	20867 Stip1
NM_016750	51788 H2afz
NM_016769	17127 Madh3
NM_016778	51800 Bok
NM_016806	53379 Hnrpa2b1
NM_016909	53424 Tsnax
NM_016910	53892 Ppm1d
NM_017379	53857 Tuba8
NM_017395	53970 Rfx5
NM_018731	11944 Atp4a
NM_018733	20265 Scn1a
NM_018734	55932 Gbp3
NM_018743	102247 AU041707
NM_018755	54381
NM_018761	54366 Catnal1
NM_018772	55950 Bri3
NM_018798	54609 Ubqln2
NM_018808	81489 Dnajb1
NM_018851	56045 Samhd1
NM_018879	56032 Tusc4
NM_019409	18377 Omg
NM_019435	104130 Np15
NM_019501	56075
NM_019505	56077 Dgke
NM_019518	56149 Grasp
NM_019537	56088 Dscr2
NM_019571	56224 Tm4sf9
NM_019587	140571 Plxnb3
NM_019629	56290 Prp15
NM_019631	56277

Figure 50-9

NM_019635	56274 Slk3
NM_019639	22190 Ubc
NM_019643	56306 Tera
NM_019648	56307 Metap2
NM_019649	56457 Clptm1
NM_019659	56379 Konj1
NM_019660	56309 Mycbp
NM_019668	22209 Ube2a
NM_019676	18799 Picd
NM_019691	14802 Gria4
NM_019701	56365 Clnk1l
NM_019703	56421 Plkp
NM_019714	21888 Tle4
NM_019745	56426 Pcd10
NM_019768	56397 Morf4l2
NM_019772	56372
NM_019773	56382 Rab9
NM_019776	56463 AL033314
NM_019816	56321 Aatf
NM_019836	56412
NM_019868	56258 Hnrph2
NM_019921	56697 Akap10
NM_019951	56529
NM_019959	56745 C1qtnf1
NM_019968	56795 Arm1
NM_019983	56715 Rabgef1
NM_020006	56699 Cdc42ep4
NM_020024	24075 Taf10
NM_020050	56786
NM_020558	57316 C1d
NM_020584	57321 Terf2ip
NM_020610	78593 Nrip3
NM_020614	21340 Taf1b
NM_020616	57373 ICRFP703B1614Q5.6
NM_020619	57377 Gcs1
NM_020624	57391
NM_021316	57754
NM_021332	14652 Glp1r
NM_021371	140904 Caln1
NM_021406	58217 Trem1
NM_021460	16889 Lip1
NM_021483	58869 Pex2
NM_021489	58992 F12
NM_021504	59007 Ngly1
NM_021516	17169 Mark3
NM_021518	59021 Rab2
NM_021530	59033 Slc4a8
NM_021549	59047 Pnkp
NM_021567	59092 Pcbp4
NM_022321	64099 Parvg
NM_022992	65106 Arl6ip5
NM_023167	66163 Mrpl4
NM_023178	66233 Dmap1
NM_023179	66237 Atp6v1g2
NM_023210	66471 Anp32e

Figure 50-10

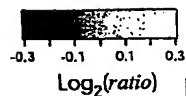
NM_023450	68355
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NM_023516	69573
NM_023587	70757 Ptplb
NM_023633	71952
NM_023697	105014 Rdh14
NM_023805	76257 Slc38a3
NM_023835	76681 Trim12
NM_023852	67295 Rab3c
NM_023884	78255
NM_024189	67057 Yaf2
NM_024197	67273 Ndufa10
NM_024201	67433
NM_024244	71721
NM_024441	69253 Hspb2
NM_024477	209683 Al428795
NM_024479	79565 BC002286
NM_025273	13180 Pcbd
NM_025310	56095 Epcs3
NM_025335	66074
NM_025387	66154
NM_025409	66191
NM_025415	66197 Cks2
NM_025449	66257 Nicn1
NM_025450	66258 Mrps17
NM_025596	66494
NM_025683	66646 Rpe
NM_025718	66705 Dnase1l2
NM_025790	66834 Them2
NM_025822	66880
NM_025826	66885 Acadsb
NM_025835	66904 Pccb
NM_025876	66971 Cdk5rap1
NM_025983	67126 Atp5e
NM_026040	67222
NM_026065	67270
NM_026096	67334
NM_026107	52712 D11Erttd714e
NM_026162	67448 Plxdc2
NM_026187	52231 D1Erttd161e
NM_026306	67674
NM_026309	67678 Lsm3
NM_026401	67840 Mrp63
NM_026411	67851
NM_026417	67864
NM_026423	67873
NM_026435	67890
NM_026487	67979
NM_026518	68031
NM_026551	68087
NM_026559	52700 D11Erttd672e
NM_026819	52585 Dhhs1
NM_027324	14057 Sfxn1
NM_029478	75909
NM_030252	80284 BC003266
NM_030262	80294

Figure 50-11

NM_030558	80733 Car15
NM_030611	83702 Akr1c6
NM_030708	80892
NM_030719	80909 Gats
NM_030880	80708 Pacsin3
NM_031184	83396 Gli5
NM_031877	83767 Wasf1
NM_033327	94187 Ebfaz
NM_033370	70349 Copb1
NM_033562	116891 BC005682
NM_033568	27681 D11Moh34
NM_053105	93688 Kihl1
NM_053183	94213 Ddx50
NM_053193	94230 Cpsf1
NM_053271	116838 Rlms2
NM_080289	76238 Grhpr
U51279	12048 Bcl2l
U53591	14112 Fau-ps3
U69136	12565 Cdh9
U70033	20541 Slc8a1
X16301	
X17647	18212 Ntrk2
X54327	107508 Eprs
X66323	22596 Xrcc5
Y11717	15400 Hoxa3
Y12713	27282 Erv4
Y17852	14548 Gdap3

Figure 50-12

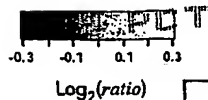
Figure 5A



	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	AK013995	73078		mitochondrion	misc
	AK008537	67035		cytoplasm	translation
	NM_019773	56382	Rab9	Golgi apparatus	transport
	AK013965	68969		cytoplasm	translation
	NM_026559	52700	D11Etd672e		transport
	NM_019518	56149	Grasp	cytoplasm; perinuclear space; plas	signaling
	NM_023587	70757	Ptpib	extracellular; integral to membra	signaling ?
	NM_007440	11684	Alox12	plasma membrane	lipid metabolism
	AK011853	72475	Ssbp3	nucleus	transcription
	NM_008297	15500	Hsf2	cytoplasm; nucleus; polytene chrom	transcription
	AK018254	50758	Fbxo13		unknown
	AK011862	28018	D7Wsu128e		protein degradation ?
	NM_021549	59047	Pnkp	telomere	misc
	AK012843	72668			traffic
	NM_030558	80733	Car15		metabolism
	AK019458	70122	Mllk3	transcription factor TFIIF compl	tumor related
	NM_023852	67295	Rab3c	synaptic vesicle	transport
	AK021021	16423	Cd47	integral to plasma membrane	cell adh - signaling (receptor)
	NM_025826	66885	Acadslb	mitochondrion	metabolism
	NM_025387	66154		integral to membrane	unknown
	NM_013916	30929	AL022832		unknown
	AF168680	50766	Crim1	extracellular	growth factor
	D50060	18553	Pace4	membrane	signaling (receptor)
	AK017798	70676			signaling
	NM_007377	11302	AatK	integral to membrane	apoptosis
	NM_009055	19724	Rfx1	intermediate filament; nucleus	transcription
	AK013604	72880			unknown
	AF061934	50782	Rgs11	heterotrimeric G-protein complex	signaling
	NM_025409	66191		extracellular space; integral to	unknown
	NM_010358	14862	Gstm1	cytoplasm	metabolism
	NM_009046	19698	Relb	transcription factor complex	transcription
	AK011531	67788			unknown
	NM_022321	64099	Parvg	cytoskeleton	cell adh
	AK017493	67974		cytoplasm	cell cycle
	NM_019435	104130	Np15	integral to membrane; mitochondri	unknown
	AK009163	76730			unknown
	NM_019868	56258	Hnrph2	nucleus; ribonucleoprotein comple	traffic
	AK012852	67197		cytoplasm	transcription ?
	NM_011643	22063	Trpc1	integral to plasma membrane	signaling (receptor)
	AF059175	13867	ErbB3	integral to membrane; intracellul	signaling (receptor)
	NM_010950	18223	Numb1	cytoplasm	misc
	NM_009881	12593	Cdyl	chromatin; nucleus	cell cycle
	AK019915	78271			unknown
	AB056100	66902	Mtap		misc
	U69136	12565	Cdh9	integral to membrane	cell adh
	AK016792				unknown
	AK012740	66315		integral to membrane	unknown
	AF282272	258740	MOR171-12	integral to membrane	signaling
	AK013276	66329		membrane	signaling (receptor)
	NM_024441	69253	Hspb2	cytosol	translation
	NM_016750	51788	H2afz	nucleosome; nucleus	cell cycle
	NM_023450	68355		integral to membrane	unknown
	NM_013754	27356	Ins16	extracellular space	growth factor
	AK004627	74119			unknown
	NM_013909	30840	Fbx16		protein degradation
	NM_033370	70349	Copb1	Golgi membrane; Golgi vesicle; cyt	transport
	NM_008091	14462	Gata3	microtubule; nucleus	transcription
	BC005786	70579			unknown
	NM_020024	24075	Taf10	focal adhesion; transcription fac	transcription
	U51279	12048	Bcl2l	integral to membrane; mitochondri	apoptosis

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Figure 5B



	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_008142	14688	Gnb1	heterotrimeric G-protein complex	signaling
	Y12713	27282	Erv4		virus
	NM_021460	16889	Lip1	extracellular space;lysosome	lipid metabolism
	NM_025335	66074		extracellular matrix	unknown
	AK008955	70397			unknown
	NM_007980	14079	Fabp2	soluble fraction	transport
	BC003843	70356	Stt3	integral to membrane	metabolism
	AK014396	74020	Cpne4	mitochondrial inner membrane	metabolism
	NM_007922	13712	Elk1	membrane;nucleus	transcription
	AK005230	76338		Golgi apparatus;endoplasmic ret	transport - signaling
	AK013788	73047			unknown
	NM_007622	12412	Cbx1	centric heterochromatin;nucleopl	misc
	NM_007393	11461	Actb	cytoskeleton	ctsk
	NM_007898	13595	Ebp	endoplasmic reticulum membrane;l	lipid metabolism
	NM_016719	50915	Grb14		signaling (receptor)
	NM_007564	12192	Zfp3611	cytoplasm;nucleus	transcription
	AL078630				unknown
	AK007310	76669			transcription
	AK020492	77305			transcription
	AK016714	74405			unknown
	NM_013625	18472	Pafah1b1	centrosome;microtubule associate	lipid metabolism
	NM_007841	13209	Ddx6	eukaryotic translation initiat	misc
	AK003004	18111	Nnat		transport
	U70033	20541	Slc8a1	integral to plasma membrane	transport
	AK014695	71633			unknown
	NM_007624	12417	Cbx3	chromatin;nucleus	transcription
	NM_018851	56045	Samhd1		immune response
	AK016128	75359			unknown
	AF342737	67378	Bbs2	integrin complex	misc (secreted) ?
	NM_008606	17385	Mmp11	extracellular matrix;extracellul	protein degradation
	NM_018808	81489	Dnajb1	cytoplasm	translation
	AF369902	68291	Mto1	mitochondrion	metabolism
	NM_016737	20867	Stip1	Golgi apparatus;nucleus	misc
	AF411834	20620	Snk	phosphorylase kinase complex	cell cycle
	AK011725	69928		cytoskeleton	unknown
	AK021227	78531			unknown
	NM_016692	16319	Incenp	chromosome-, pericentric region;	cell cycle
	AK018646	75761			apoptosis
	NM_011601	21893	Tln	extracellular;integral to membra	tumor related
	NM_023167	66163	Mrpl4	ribosome	translation
	AK018662	74549			unknown
	NM_027324	14057	Sfxn1	integral to membrane;mitochondri	transport
	NM_019631	56277		integral to plasma membrane	tumor related (receptor)
	NM_019537	56088	Dscr2	integral to plasma membrane;memb	cell cycle
	NM_007600	12333	Capn1	cytoplasm	protein degradation
	NM_026487	67979		endoplasmic reticulum	unknown
	NM_022992	65106	Arl6ip5	integral to membrane	transport
	NM_010362	14873	Gsto1	cytoplasm	misc
	NM_013736	27224	Tceb3	nucleus	transcription
	NM_011012	18389	Opr1	integral to plasma membrane	signaling (receptor)
	AK021099	77462			unknown
	NM_053183	94213	Ddx50	nucleolus	translation
	NM_007828	13144	Dapk3	cytoplasm;nucleus	apoptosis
	NM_009106	20166	Rtkn	intracellular;membrane	signaling
	AK017787	66663	Ube1dc1	chloroplast	protein degradation
	NM_008707	18107	Nmt1	cytoplasm	misc
	BC005658	69957	Cdc16		cell cycle
	NM_008771	18436	P2rx1	integral to membrane	apoptosis
	AK008736	70153			unknown
	NM_026417	67864		integral to membrane	unknown
	AB035381	170759	Cgi152	integral to membrane	metabolism
	AK010466	76484			unknown
	NM_023697	105014	Rdh14	extracellular space	metabolism

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Figure 5/C

Log ₂ (ratio)	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_020584	57321	Terf2ip	chromosome-, telomeric region;nu	cell cycle
	AK003609	76308		Golgi apparatus;endoplasmic reti	signalling
	BC003957	78408			transport
	BC002198	102334	Ankrd10		transcription
	AF448804	72162	Dhx36		translation
	AK010387	69748			metabolism?
	NM_021371	140904	Cain1		signalling
	AF326960	21380	Tbx1	microtubule;nucleus	transcription
	NM_019816	56321	Aatf	mitochondrial inner membrane;nuc	apoptosis
	AK010328	69702	Ndufa1	mitochondrion	translation
	AK006739	22217	Usp12		protein degradation
	BC018220	69190			unknown
	AK003794	97541	Qars		translation
	AK013596	72929			unknown
	AK014500	77047		dynein complex	ctsk
	AK010752	73694			unknown
	NM_019836	56412		extracellular space;integral to	unknown
	AK017214	71323			tumor related
	NM_020616	57373	ICRFP703B1614Q5.6		unknown
	NM_019648	56307	Metap2	large ribosomal subunit	protein degradation
	L17305				unknown
	NM_009806	12361	Cask	actin cytoskeleton;basolateral p	signalling
	NM_015830	50817	Solh	cytoplasm	unknown
	BC016398	19079	Prkab1	cytoplasm;nucleus	lipid metabolism
	AK004472	68891			signalling (receptor)
	AK015559	74946			unknown
	AK007355	69035	Zdhhc3	Golgi apparatus;integral to memb	protein degradation
	NM_025835	66904	Pccb	biotin carboxylase complex;extra	metabolism
	NM_019659	56379	Kcnj1	voltage-gated potassium channel	ion channel
	NM_033568	27681	D11Moh34	plasma membrane	unknown
	AK017442	71453			ctsk?
	AK011064	70235		membrane	unknown
	NM_016909	53424	Tsnax	mitochondrial inner membrane;nuc	misc
	NM_020050	56786		extracellular space;integral to	signalling?
	NM_011522	20974	Syngt3	integral to plasma membrane	unknown
	NM_011018	18412	Sqstm1	cytosol	protein degradation
	NM_008014	14208	Ppm1g	nucleus;protein serine-threonine	cell cycle
	NM_023633	71952		cytosol	unknown
	AK017460	71448			unknown
	NM_008797	18563	Pcx	mitochondrion	metabolism
	NM_008115	14586	Gfra2	extracellular space;membrane	signalling (receptor)
	NM_013759	27361	Sepr		metabolism
	BC003901	107951	Cdk9	transcription elongation factor	cell cycle
	AK003358	68576			unknown
	BC003914	58875		mitochondrion	misc
	AK004090	73747			unknown
	AK009886	71923			unknown
	NM_019772	56372		integral to membrane	protein degradation?
	AK004191	66061			ctsk?
	NM_019691	14802	Gria4	extracellular space;integral to	signalling (receptor)
	NM_010255	14431	Gamt	cytoplasm	metabolism
	AK016917	74446		membrane	unknown
	NM_010934	18166	Npy1r	integral to plasma membrane	signalling
	NM_009624	11515	Adcy9	integral to plasma membrane	misc
	AK007766	76510			unknown
	AB041586	76454			unknown
	NM_018731	11944	Atp4a	integral to membrane	metabolism
	NM_008418	16491	Kcna3	voltage-gated potassium channel	transport
	AK014811	75801			unknown
	NM_020614	21340	Taf1b	RNA polymerase I transcription f	cell cycle
	NM_016769	17127	Madh3	nucleus;plasma membrane	transcription
	NM_007933	13808	Eno3	phosphopyruvate hydratase comple	metabolism
	AK016857	71074			unknown

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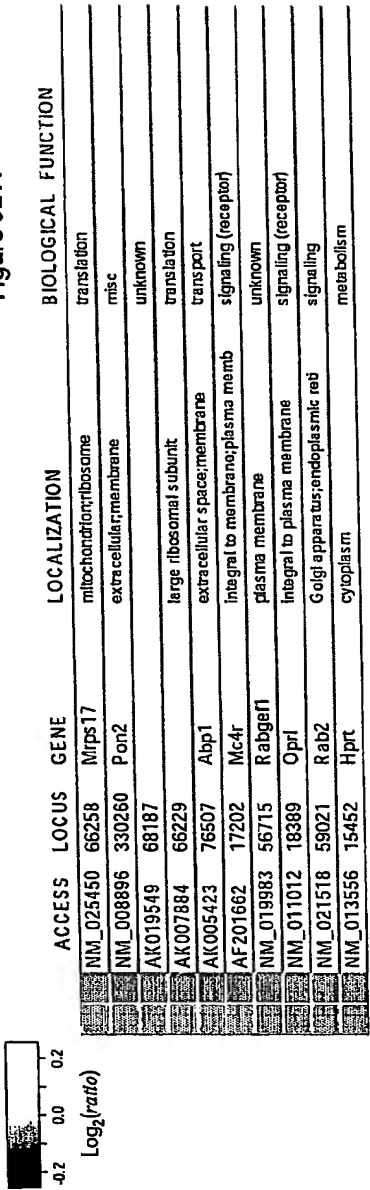


Figure 5D

ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_008761	18301	Fxyd5	extracellular space;integral to	transport
AK019466	77626		integral to membrane	misc
NM_018798	54609	Ubqln2	endoplasmic reticulum membrane	unknown
AK009282	71897		membrane	signaling (receptor)
NM_013867	29815	Bcar3	actin filament	signaling (GEF)
AK003819	74777			misc
NM_024189	67057	Yaf2	nucleoplasm	unknown
NM_011921	28358	Aldh1a7		metabolism
NM_009025	19414	Rasa3	plasma membrane	signaling (GAP)
NM_053271	116838	Rlms2		signaling
AK002842	68386			unknown
NM_023805	76257	Slc38a3	integral to plasma membrane	transport
BC016616	76022			unknown
AK018520	71544			cell cycle
NM_008550	17160	Man2b2	extracellular space;lysosome	metabolism
NM_011961	26432	Plod2	endoplasmic reticulum;extracellu	metabolism
NM_007531	12034	Bcap37	mitochondrion	signaling
AF303106	110012	Gtgeo22	integral to membrane	misc
X66323	22596	Xrcc5	cytoplasm;single-stranded DNA de	misc
AF317517	77889		nucleus	transcription
AF179996	20362	sep-08		ctsk
NM_025415	66197	Cks2		cell cycle
AK015457	74655			unknown
NM_030880	80708	Pacsl3	Golgi trans face	transport
AK019549	68187			unknown
NM_026306	67674			unknown
NM_021516	17169	Mark3	microtubule cytoskeleton	ctsk ?
BC012975	14526	Gcg	extracellular space	signaling
NM_009472	22253	Unc5c	extracellular space;integral to	signaling (receptor)
AK005609	69315			unknown
NM_053193	94230	Cpsf1	mRNA cleavage and polyadenylation	transcription
NM_007502	11933	Atp1b3	sodium-potassium-exchanging ATP a	transport
AK013690	19329	Rab12	intracellular	tumor related
NM_008403	16413	Igfb1bp1		signaling
AK015640	70646			unknown
NM_016778	51800	Bok		apoptosis
NM_026162	67448	Plxdc2	extracellular space;integral to	signaling
NM_011791	23808	Ash2l		transcription
NM_019501	56075		chloroplast	misc
NM_010638	16601	Btab1	transcription factor complex	transcription
NM_008915	19057	Ppp3cc	protein serine-threonine phosphatase	signaling
AJ400622	230157	Tmeff1		protein degradation
NM_007728	12810	Coch	extracellular matrix;extracellular	misc
NM_008580	26408	Map3k5	cytoplasm	signaling (MAPK)
AK005063	110351	Rap1ga1		signaling
NM_009255	20720	Serpine2	extracellular space	protein degradation (secreted)
NM_009130	20255	Scg3	cytoplasm;extracellular space	misc
NM_008358	16169	Il15ra	extracellular space;integral to	immune response (receptor)
AK004559	66871	Cpne8	membrane	transport
AK012847	72674		integral to membrane	unknown
NM_026819	52585	Dhrs1		metabolism
NM_026423	67873		eukaryotic translation initiation	translation
NM_020824	57391		integral to membrane	unknown
NM_018733	20265	Scn1a	integral to membrane;membrane fr	ion channel
AY044265	235339	Dlat	pyruvate dehydrogenase complex (metabolism
AK011541	71810			unknown
NM_009503	269523	Vcp	Golgi apparatus;endoplasmic reticulum	transport
AK011234	72459			translation
NM_019703	56421	Pfkfb	6-phosphofructokinase complex	metabolism
NM_019505	56077	Dgke	integral to membrane	signaling, transport
NM_018761	54366	Catna1	zonula adherens	cell adh
AK016267	65103	Arl6ip6	integral to membrane	unknown
AK019985	77521		non-muscle myosin	signaling

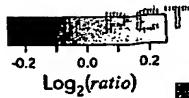
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Figure 52 A



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Figure 52 B



	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	AK002309	68327		cytoplasm	unknown
	AK013197	66390			translation ?
	BC016616	76022			unknown
	AK014652	74574			unknown
	NM_011126	18843	Plunc	extracellular;integral to plasma	tumor related
	AJ133536	20955	Sybl1	Golgi apparatus;endoplasmic reti	translation
	AK007864	67893		membrane ?	unknown
	AJ308965	101739	Psip2	extracellular space	transcription ?
	NM_009276	20819	Srst	nucleus	transcription
	AK011330	72124		nuclear pore	traffic
	Y17852	14548	Gdap3	mitochondrion	unknown
	BC003247	229725	Mclc		transport
	NM_007688	12632	Cfl2	cytoskeleton;nucleus	ctsk
	AF039839				unknown
	AJ007376	26900	Ddx3y		cell cycle
	NM_053105	93688	Klhl1	cytoskeleton	ctsk
	NM_021483	58869	Pex2	peroxisomal membrane	unknown
	NM_009282	20842	S tag1	nucleus	cell cycle
	AK016267	65103	Arl6ip6	integral to membrane	unknown
	AK006923	73476			unknown
	NM_023884	78255		nucleosome	signalling (GEF)
	NM_010101	13610	Edg3	integral to plasma membrane	signalling
	AK016715	76799			signalling ?
	AK003820	76295	Atp11b	integral to membrane;plasma memb	metabolism
	AK020724	77578	Bcl9	nucleus	immune response
	NM_020610	78593	Nrip3		unknown
	AJ252147	66413		proteasome complex (sensu Eukary	unknown
	AJ246002	50850	Spg4	nucleus	misc
	NM_009831	12450	Ccng1	nuclear cyclin-dependent protein	cell cycle
	NM_007668	12568	Cdk5	cytosol;filopodium;lamellipodium	cell cycle
	NM_033562	116891	BC005682	integral to membrane	misc
	BC002226	170833	Hook2		unknown
	AK018573	71517		membrane	unknown
	NM_025449	66257	Nicn1		unknown
	NM_009460	22218	Ubl1	nuclear pore	cell cycle
	AK014695	71633			unknown
	AF343581	72322	Xpo5	nucleus	transport
	NM_016664	50994	Mata2		tumor related
	AK019589	78109			unknown
	AK014327	244672			unknown
	NM_020558	57316	C1d	transcriptional repressor comple	transcription
	NM_019635	56274	Stk3	cytoplasm;protein kinase CK2 com	apoptosis
	BC004653	67155		nucleoplasm	transcription
	AK012211	70998			transcription
	NM_019660	56309	Mycbp	cytoplasm;nucleus	transcription
	AK014435	55951	Brp441		unknown
	NM_017395	53970	Rfx5	intermediate filament	transcription
	AK014735	67392			unknown
	NM_025409	66191		extracellular space;integral to	unknown
	NM_021316	57754		integral to membrane	unknown
	AK015640	70646			unknown
	NM_022992	65106	Arl6ip5	integral to membrane	transport
	NM_009551	22682	Zfp216		transcription ?
	NM_009748	12068	Bet1	Golgi membrane;endoplasmic retic	transport
	AJ223782	235072	sep-07	actin cytoskeleton	ctsk
	NM_011051	18570	Pdcd6	cytoplasm	apoptosis
	AK009251	50529	Mrps7	mitochondrial small ribosomal su	translation
	NM_033327	94187	Ebfaz	transcription factor complex	transcription
	NM_026518	68031		cytoplasm	protein degradation ?
	AK005136	74189	Phactr3	nucleus	unknown
	NM_018755	54381		cytoplasm	protein degradation
	NM_010609	16530	Kcnk7	integral to plasma membrane	ion channel
	NM_008015	14209	Fin14	integral to membrane	unknown

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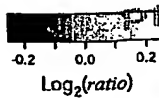


Figure 52 C

ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
AK013379	78771		Integral to membrane	unknown
NM_010911	18041	Nfs1	cytosol;extracellular space;mito	metabolism
NM_010313	14697	Gnb5	heterotrimeric G-protein complex	signaling
AK012283	72569			unknown
AK010152	66556	Drap1	negative cofactor 2 complex	transcription
NM_019701	56365	Cicn11	Integral to membrane	ion channel
AK015717	75102			unknown
AK004139	68735		mitochondrion;ribosome	translation
AK013322	72774	Neil1	nucleus	misc
NM_019409	18377	Omg	extracellular space;integral to	signaling
AK019915	78271			unknown
AK013304	52132	D7Ert462e	cytoplasm	unknown
AK003450	74319		membrane	unknown
NM_024197	67273	Ndufa10	extracellular space;mitochondrio	metabolism
AK005146	76499	Clasp2	Golgi apparatus;cytoplasmic micr	ctsk
AK019886	68151			unknown
AF229644	54646	DXImx48e	integral to membrane;microtubula	signaling
AK004676	67459		nucleus	transport
NM_011334	12727	Cicn4-2	Integral to plasma membrane	ion channel
AB049650	75398	Mrip132	mitochondrial large ribosomal su	translation
NM_021332	14652	Glp1r	extracellular space;integral to	signaling (receptor)
NM_017379	53857	Tuba8	microtubule	ctsk
NM_011949	26413	Mapk1	cytoplasm;nucleus	signaling
NM_024244	71721		membrane	unknown
NM_009011	19359	Rad23b	repaiosome	cell cycle
NM_013841	22365	Vps45	Golgi apparatus;membrane	transport
BC011091	109815	H47	Integral to membrane	unknown
AK014610	74352		Intracellular	transcription
AK014839	51938	D3Ert4789e	myosin ?	ctsk ?
AF224264	233908	Fus	cytoplasm;transcription factor T	unknown
NM_010358	14862	Gstm1	cytoplasm	metabolism
AK014175	73205			unknown
NM_009104	20136	Rrm2	cytoplasm;ribonucleoside-diphos p	cell cycle
NM_008761	18301	Fxyd5	extracellular space;integral to	transport
NM_011870	23991	Cib1	synaptic vesicle	signaling
NM_031184	83396	Gli5	transcription factor complex	transcription
NM_008797	18563	Pcx	mitochondrion	metabolism
AK002252	68323			unknown
NM_009020	19374	Rag2	alpha DNA polymerase-primase co	cell cycle
BC004739	213211	Rnf26		apoptosis
NM_011154				unknown
AK006273	69441			unknown
X17647	18212	Ntrk2	cytosol;integral to membrane;pla	signaling (receptor)
BC005598	98221	Ga17	signalosome complex	protein degradation
NM_030719	80909	Gats		unknown
AK011036	66230	Mpr28	mitochondrion	translation
NM_013789	27414	Gnefr	cytoplasm;nucleus	misc
NM_025790	66834	Them2		misc
AK003132	75406	Ndufs7	extracellular space;mitochondrio	metabolism
NM_008133	14661	Glud	mitochondrion	metabolism
AK009888	69655			cell adh
AF193608	60364	Donson		unknown
NM_007728	12810	Coch	extracellular matrix;extracellul	misc
NM_007709	12705	Cited1	nucleus	transcription ?
NM_019951	56529		endoplasmic reticulum;integral t	protein degradation
NM_008160	14775	Gpx1	mitochondrion	metabolism
NM_026401	67840	Mrip63	mitochondrial ribosome	misc
NM_021489	58992	F12	extracellular space	misc (secreted)
AK016247	18640	Pfkfb2	cytosol	metabolism
NM_010798	17319	Mif	extracellular space	Immune response
NM_019714	21888	Tle4	nucleus	transcription
AK019515	77041		lysosome	metabolism
AK011540	71807			misc

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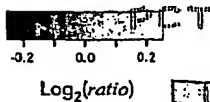
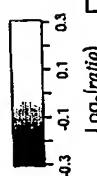


Figure 52 D

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_010073	13481	Dpm2	endoplasmic reticulum;integral t	metabolism
	BC004020	11603	Agri	extracellular space	signaling (secreted)
	NM_008990	19294	Pvrl2	extracellular space;integral to	cell adh
	BC004771				unknown
	BC002298	19283	Ptpz1	extracellular matrix;extracellul	signaling (receptor)
	NM_019676	18799	Plcd	cytoplasm	signaling
	AK019095	78887			unknown
	NM_025876	66971	Cdk5rap1	extracellular space	cell cycle
	NM_009950	12905	Cradd	cas pase complex;intracellular	apoptosis
	BC004690	216274	BC004690	cytoskeleton	unknown
	AK005314	19342	Rab4b	Intracellular	Transport
	NM_007899	13601	Ecm1	extracellular matrix;extracellul	ecm
	AK007503	69101			unknown
	NM_011251	19654	Rbm6	spliceosome complex	misc
	AK003209	75725			unknown
	NM_026187	52231	D1Erttd161e		transcription ?
	AK003358	68576			unknown
	NM_008226	15166	Hcn2	Integral to membrane	ion channel
	NM_026096	67334		nucleosome;nucleus	unknown
	AK016936	71075			unknown
	NM_010417	15203	Heph	extracellular space	transport
	NM_009582	26404	Map3k12	cytoplasm;plasma membrane	signaling (MAPK)
	AK019527	78903	Wrip1	DNA replication factor C complex	misc
	NM_013932	30959	Ddx25		translation
	NM_016910	53892	Ppm1d	protein serine-threonine phospho	signaling
	BC008101	68939			signaling
	NM_010254	14428	Galr2	Integral to membrane	signaling (receptor)
	AK009937	71941			transcription ?
	NM_008590	17294	Mest	extracellular space	protein degradation
	AK019665	78174		mitochondrion	metabolism
	BC004640	97064		ubiquitin ligase complex	transcription
	NM_030252	80284	BC003266	extracellular space	unknown
	AK006185	70373			unknown
	NM_011256	19679	Rdgb2	Integral to membrane;intracellul	transport
	AF061934	50782	Rgs11	heterotrimeric G-protein complex	signaling
	NM_033370	70349	Copb1	Golgi membrane;Golgi vesicle;cyt	transport
	NM_011962	26433	Plod3	endoplasmic reticulum;extracellu	metabolism
	NM_025596	66494		mitochondrion	transport ?
	AK002298	71660	Rarres2	extracellular space	misc
	AK009522	71901			unknown
	AF296075	81896	Wdr10	cytoplasm	unknown
	NM_019639	22190	Ubc	nucleus	protein degradation
	NM_008138	14678	Gnai2	plasma membrane	signaling (receptor)
	NM_020619	57377	Gcs1	endoplasmic reticulum	misc
	NM_010243	14348	Fut9	Golgi apparatus;integral to memb	metabolism
	NM_008072	14403	Gabrd	extracellular space;integral to	signaling (receptor)
	AK020104	77733		Integral to membrane ?	unknown
	NM_007581	12297	Cacnb3	voltage-gated calcium channel co	ion channel
	NM_030262	80294			unknown
	NM_009732	11998	Avp	extracellular space	growth factor (secreted)
	BC005792	170789	Pta1	peroxisome	metabolism
	AB035381	170759	Cgl152	Integral to membrane	metabolism
	NM_026551	68087			metabolism ?
	NM_009539	22637	Zap70	phosphoinositide 3-kinase comple	immune response (receptor)
	NM_008161	14778	Gpx3	extracellular space	metabolism
	AK010963	70312			unknown
	BC004581	98432	Al836256		unknown
	AK013465	12348	Car11	cytoplasm	metabolism
	NM_008451	16594	Klc2	kinesin complex	ctsk
	NM_018772	55950	Bri3	Integral to membrane	transport
	AK003542	73728		mitochondrial inner membrane	unknown
	AK008734	72349	Dusp3		signaling
	BC018220	69190			unknown

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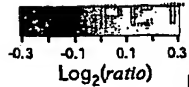
Figure 53 A



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_009136	20284	Srg1	extracellular space	misc
BC013502	217353	Tmc6	integral to membrane	transport
NM_018743	102247	AL041707	integral to membrane	metabolism
AK018849	66510		membrane ?	unknown
NM_023179	66237	Atp6v1g2	hydrogen-transporting ATPase V1	metabolism
NM_016703	50907	Preb	integral to membrane;nucleus	transcription
NM_023210	66471	Anp32e	cytoplasmic vesicle;nucleus	signaling
AL078630				unknown
AK014393	74025		Golgi apparatus;endoplasmic ret	unknown
AK003609	76308			signaling
AK017014	71281			unknown
NM_011192	19192	Psmc3	proteasome activator complex;pro	protein degradation
AK015898	75141	Rasd2		signaling
AK018146	17344	Miz1	nucleus;sepin ring	transcription
NM_021406	58217	Trem1	extracellular space;integral to	signaling (receptor)
AK011896	72486		cytoplasm;extracellular space;in	unknown
BC004581	98432	AIB36256		unknown
AK016267	65103	Arfip6	integral to membrane	unknown
AK018389	71492	Bbs7		unknown
D83203	19271	Ptpn1	extracellular space;integral to	signaling
AK015338	231672			signaling ?
NM_019668	22209	Ube2a	nucleus	protein degradation
NM_008946	19175	Psmb6	proteasome core complex (sensu E	protein degradation
NM_020006	56699	Cdc42ep4	cytoskeleton	ckk
NM_007618	12401	Serpinh6	extracellular space	protein degradation
AK002386	109801	Gib1		unknown
NM_018879	56032	Tusc4		cell cycle

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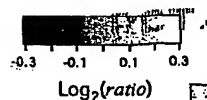
Figure 53 B



	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_009846	12484	Cd24a	extracellular space; plasma membr	immune response
	NM_021504	59007	Ngly1	cytoplasm; nucleus	protein degradation
	AK017294	71331			unknown
	AK019934	70255			unknown
	AF440737	69362		extracellular space	misc (secreted) ?
	NM_023835	76681	Trim12	cytoplasm	unknown
	NM_008113	14570	Arhgd1g	cytoplasm	signaling - ctsk
	NM_007474	11833	Aqp8	Integral to plasma membrane; mito	transport
	NM_009688	11798	Birc4	cytosol	apoptosis
	X54327	107508	Eprs		translation ?
	BC005672	230784	Sesn2	extrachromosomal circular DNA; nu	cell cycle
	NM_031877	83767	Wasf1	actin cytoskeleton	ctsk
	AK011832	72465	Zfp131		transport
	NM_011908	24109	Ubl3		unknown
	NM_080289	76238	Grhpr		metabolism
	NM_019643	56306	Tera		unknown
	NM_008974	19244	Ptp4a2	soluble fraction	signaling
	NM_008230	15186	Hdc	extrachromosomal circular DNA	metabolism
	NM_024477	209683	AI428795		unknown
	NM_024201	67433			unknown
	AK011950	67157			unknown
	NM_030708	80892		extracellular; nucleus	transcription
	NM_008307	15547	Htf9c	mitochondrial inner membrane	misc
	NM_009895	12700	Cish	cytoplasm; plasma membrane	signaling
	AK016612	74426			unknown
	NM_008871	18787	Serpine1	extracellular space	protein degradation
	NM_018734	55932	Gbp3	cytosol	immune response
	BC003932	67278			unknown
	AK005001	74159	Acbd5	Integral to membrane	transport
	NM_008301	15512	Hspa2	cytoplasm	translation
	AK014830	80708	Paccin3	Golgi trans face	ctsk
	NM_026309	67678	Lsm3		misc
	AK019863	77634			translation
	AK007505	68118			unknown
	NM_009357	21766	Tex261	extracellular space; integral to	lipid metabolism
	NM_026435	67890			unknown
	AK004041	68730			unknown
	AK005010	71768			unknown
	NM_024479	79565	BC002286	endoplasmic reticulum	protein degradation ?
	AK014764	74600			translation
	NM_008920	19074	Prg2	cytoplasm; extracellular space	growth factor (secreted)
	K02138				unknown
	AK015536	106248			unknown
	NM_030611	83702	Akr1c6	cytoplasm	metabolism
	AB039933	70335	Dp111	Integral to membrane	transport
	NM_019959	56745	C1qtnf1	extracellular space	signaling (receptor) ?
	AK006923	73476			unknown
	AK018159	18549	Pcsk2	Golgi apparatus; extracellular sp	translation
	AK013710	73051			unknown
	BC017625	68047			unknown
	NM_019768	56397	Morf412	chromatin; nucleus	transcription
	AK013427	104884			signaling
	NM_025683	66646	Rpe		metabolism
	AF282304	258276	MOR224-12	Integral to membrane	signaling (receptor)
	NM_026107	52712	D11E rtd714e	transcription factor complex	transcription
	NM_008350	16156	Il11	extracellular space	immune response
	NM_026040	67222			unknown
	AK016545	74390			unknown
	BC005744	72144	Slc37a3	extracellular space; integral to	transport
	NM_013596	17203	Mc5r	Integral to membrane	signaling
	AK013022	69227			unknown
	NM_008858	18760	Prkcm	Golgi apparatus; cytosol; extracel	signaling
	X16301				unknown

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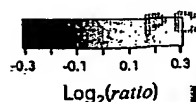
Figure 53 C



	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_009070	19826	Rnps1	viral nucleocapsid	transcription
	BC005659	171388	Bnip1	membrane	apoptosis
	NM_025718	66705	Dnase112	extracellular space	misc
	NM_011177	19144	Prss18	cytoplasm;extracellular space	protein degradation
	AK021208	77422			unknown
	AK005015	246277	Csad		metabolism
	NM_009069	19769	Rlt1	plasma membrane	signaling
	AK006110	67080			unknown
	AF276974	192201		extracellular space	unknown
	NM_016806	53379	Hnrpa2b1	nucleus;ribonucleoprotein comple	transcription
	BC003479	216820		mitochondrion	metabolism
	AK002757	56282	Mrpl12	mitochondrial ribosome	translation
	NM_010799	17330	Minpp1	endoplasmic reticulum;extracellu	metabolism
	NM_007674	12592	Cdx4	transcription factor complex	transcription
	AK016481	74356			unknown
	NM_023516	69573		extracellular space;integral to	unknown
	AK003571	68507	Ppfia4		signaling (receptor) ?
	NM_019649	56457	Clptm1	aspartate carbamoyltransferase c	misc
	M60510	83796	Smarcd2	nucleus ?	transcription ?
	AK016870	71176	Fbxo24		misc
	NM_025273	13180	Pcbd	cytoplasm;nucleus	misc
	AK019878	78935			unknown
	NM_008712	18125	Nos1	cytoplasm;synapse	signaling
	AK016597	71027			unknown
	AK002293	12793	Cnih	Integral to membrane	signaling
	AK009135	73919			unknown
	NM_019629	56290	Prp15		unknown
	NM_009848	12495	Entpd1	basal lamina;Integral to membran	signaling (receptor)
	AK014834	75778			unknown
	BC005568	75689		Integral to membrane	unknown
	NM_021567	59092	Pcbp4	cytoplasm;nucleus;ribonucleoprot	transcription
	NM_021530	59033	Slc4a8	Integral to membrane	transport
	NM_008076	14409	Gabbr2	axon;extracellular space;integrate	signaling (receptor)
	AK007077	73572			unknown
	NM_009273	20813	Srp14	signal recognition particle	signaling
	BC016080	103963	Rpn1	endoplasmic reticulum;extracellu	lipid metabolism
	NM_012019	26926	Pdcd8	cytosol;mitochondrial intermembr	apoptosis
	AF140708	21462	Tcp10c		signaling (receptor) ?
	NM_029478	75909		membrane	unknown
	NM_019587	140571	Plxnb3	extracellular space;integral to	signaling (receptor)
	AK004814	97541	Qars		misc
	AK018132	74008		lysosome	signaling
	BC002199	211556	BC002199	extracellular	unknown
	BC009141	75062	Sf3a3	spliceosome complex	transcription
	AK013280	67229		spliceosome complex	transcription
	Y11717	15400	Hoxa3	transcription factor complex	transcription
	BC004766	71799	Ptcd1	ribosome	unknown
	AK012726	28036	D3Wsu161e		unknown
	NM_009261	20744	Spnr	microtubule cytoskeleton	ctsk
	AK015650	67509			unknown
	AK009365	76437	D11Bwg0414e		unknown
	NM_008233	15193	Hdgfrp2	extracellular space;nucleus	growth factor
	AK013727	14397	Gabra4	Integral to plasma membrane	signaling
	AK015957	75207			unknown
	AB020542	170938	LOC170938	transcription factor complex	unknown
	NM_011855	23963	Odz1	extracellular;integral to plasma	protein degradation
	NM_007868	13405	Dmd	cytoskeleton;membrane;synapse	ctsk
	AK009813	269423			unknown
	NM_011804				unknown
	BC016210	67017		extracellular space;integral to	unknown
	NM_026065	67270		mitochondrion	unknown
	NM_019745	56426	Pdcd10		apoptosis
	NM_019776	56463	AL033314		transcription

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Figure 53 D



	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_011021	18420	Otp	transcription factor complex	transcription
	NM_010509	15978	Ifnar2	extracellular space;integral to	signaling (receptor)
	NM_012045	26971	Pla2g2f		signaling
	NM_011990	26570	Slc7a11	integral to membrane	transport
	NM_008033	14272	Fnta	cytoplasm	misc
	AK007617	69127			tumor related
	NM_025310	56095	Epc3	membrane	misc
	AK004849	52428	Rhpn2	cytosol	signaling
	AK014446	52118	D7Ert458e		tumor related
	NM_026411	67851			unknown
	NM_025835	66904	Pccb	biotin carboxylase complex;extra	metabolism
	AK013595	72871			unknown
	U70033	20541	Slc8a1	integral to plasma membrane	transport
	BC006834	12226	Btg1		apoptosis
	AK010005	71924	Tube1	pericentriolar material	ctsk
	AK006211	67630	Samd8	integral to membrane	signaling
	AK021076	67287			unknown
	NM_023500	22439	Xkh	extracellular space;integral to	transport
	AK005035	71775		extracellular space	transport
	NM_019968	56795	Arm1	Golgi apparatus	misc
	NM_008744	18208	Ntn1	extracellular matrix;extracellul	ecm
	NM_010577	16402	Itga5	cytoskeleton;extracellular matri	cell adh
	NM_009467	22238	Ugt2b5	integral to membrane;microsome	lipid metabolism
	AK016083	75311			unknown
	AK010310	67755	Ddx47	cytoplasm	misc
	NM_009707	11856	Arlgap6	actin filament	signaling
	NM_007531	12034	Bcap37	mitochondrion	signaling
	AK016282	75863			unknown
	NM_008733	18175	Nrap	fascia adherens;striated muscle	ctsk
	NM_019571	56224	Tm4sf9	integral to membrane	cell adh
	NM_011828	23908	Hs2st1	extracellular space;integral to	metabolism
	AK019542	68259			unknown
	AK006650	73296	Rhobtb3		signaling
	NM_026162	67448	Pbdc2	extracellular space;integral to	signaling
	NM_007583	12300	Cacng2	extracellular space;tight junction	ion channel
	U53591	14112	Fau-ps3		unknown
	NM_015762	50493	Txnrd1	cytosol	transport
	NM_010710	16870	Lhx2	transcription factor complex	transcription
	NM_009029	19645	Rb1	chromatin;transcription factor c	cell cycle
	NM_026096	67334		nucleosome;nucleus	unknown
	BC004831	228608	SmoX	membrane	misc
	NM_019921	56697	Akap10	mitochondrion	transport?
	NM_012048	27015	Polk	extrachromosomal circular DNA;nu	cell cycle
	AF061934	50782	Rgs11	heterotrimeric G-protein complex	signaling
	NM_009320	21366	Slc6a6	integral to plasma membrane	transport
	D50872	19204	Ptafr	integral to membrane	signaling (receptor)
	AF224264	233908	Fus	cytoplasm;transcription factor T	unknown
	AK017578	18189	Nrxn1	integral to membrane;membrane fr	cell adh
	AK015929	70939			unknown
	NM_007693	12652	Chga	extracellular space;synaptic ves	signaling (secreted)
	NM_007377	11302	Aetk	integral to membrane	apoptosis
	BC003988	83486	Rbm5	intracellular	tumor related (suppressor)
	AK009282	71897		membrane	signaling (receptor)
	NM_007862	13383	Dlgh1	basolateral plasma membrane;cyto	misc
	NM_023178	66233	Dmap1	nucleus	transcription
	NM_011025	18429	Oxt	extracellular space	signaling (secreted)
	AK017836	76742	Snx27		unknown
	AK002637	66689	Btdb5	actin cytoskeleton	ctsk?
	BC002231	67134	Nol5a	nucleus	misc
	NM_013614	18263	Odc	mitochondrial inner membrane	misc
	AK002704	68365	Rab14		signaling
	NM_013641	19216	Ptgar1	integral to membrane	signaling
	AK002297	71667			unknown

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Access	Locus	Gene
AB003303	20493	Slc10a1
AB023957	170773	AB023957
AB049641	68537	Mrpl13
AB055154	108138	Xrcc4
AF009011	12005	Axin
AF039839		
AF062567	20687	Sp3
AF071173	15204	Herc2
AF083812	17120	Mad11
AF131865	16561	Kif1b
AF137031	83921	Tmem2
AF156547	54668	Atp11c
AF189771	11518	Add1
AF217002	252972	Tpcn1
AF229644	54646	DXImx48e
AF303106	110012	Gtrgeo22
AF334612	170761	Pdzk2
AF343752	77053	Unc84a
AF375046	93762	Smarca5
AF411834	20620	Snk
AJ292072	192160	Mln51
AK002386	109801	Glo1
AK002416	68350	
AK002458	68339	
AK002704	68365	Rab14
AK002767	76509	
AK003191	68427	Slc39a13
AK003423	71781	Slc16a14
AK003496	73833	
AK003581	100764	
AK003698	74778	
AK003830	68523	
AK004074	28106	Il25
AK004110	73750	Whrn
AK004194	68836	Mrpl52
AK004206	67282	
AK004410	52397	D5Ert689e
AK004679	73340	Nptxr
AK004688	74126	
AK005096	70364	
AK005098	68966	
AK005139	68262	Agpat4
AK005182	72022	Slc35f2
AK005386	72008	
AK005710	67283	Slc25a19
AK005887	69354	Slc38a4
AK006141	75656	
AK006185	70373	
AK006257	69371	
AK006305	71848	
AK006407	76420	
AK006487	75623	
AK006619	73261	
AK006679		
AK006897	73451	

Figure 54-1

AK006970	76719
AK007076	73555
AK007293	76645 Pkd1l2
AK007346	73608
AK007483	67169
AK007536	66262 Ing5
AK007552	56036 Ccnl2
AK007703	27410 Abca3
AK007787	67887
AK007894	75597
AK008083	72041
AK008333	70257
AK008537	67035
AK008793	72269 Cda
AK008979	72383
AK008991	70137
AK009134	75572 Acyp2
AK009341	69179
AK009450	71904
AK009454	268721
AK009480	66053 Ppil2
AK009954	67870
AK010079	70285
AK010429	71956
AK010430	69219 Ddah1
AK010452	52666 D10Erttd610e
AK010511	11652 Akt2
AK010545	69742
AK010745	73689
AK010747	73692
AK010827	76826
AK010831	76773
AK011135	77048
AK011396	234729 D8Wsu151e
AK011557	69903
AK011747	17237 Mgrn1
AK012129	74208
AK012624	72621
AK012767	109065
AK012812	69953
AK012842	72686
AK012848	72701
AK012944	20639 Snrpb2
AK013012	72184
AK013056	76373
AK013833	57259 Tob2
AK013995	73078
AK014229	73190
AK014309	75430
AK014536	66696
AK014543	70804
AK014549	74034
AK014606	77043
AK014760	75770
AK014772	74592
AK014837	70852

Figure 54-2

AK014872	70866 Slco6d1
AK014891	14479 Usp15
AK015014	70948 Wdr20
AK015063	75773
AK015098	73818
AK015114	73928
AK015454	67876
AK015598	74910
AK015888	67171
AK015972	75137
AK016135	75320
AK016202	75304
AK016990	74481
AK017014	71281
AK017182	75963
AK017215	67759
AK017320	67240
AK017352	71421
AK017451	71452
AK017597	70549 Tin2
AK017726	70625 Crsp7
AK017734	75712
AK017767	66653 Brl2
AK017809	70640
AK018191	67618 Aasdhpt
AK018549	26413 Mapk1
AK018646	75761
AK018963	78639
AK019059	59040 Arht1
AK019495	77591 Ddx10
AK019809	78051
AK019915	78271
AK020266	78906
AK020300	78240 Cst11
AK021021	16423 Cd47
AK021208	77422
AK021227	78531
AL078630	
AY029613	70359 Gtpbp3
BC002094	12913 Creb3
BC002193	110279 Bcr
BC003197	22123 Psmd3
BC003288	28088 D10Wsu52e
BC003432	110842 Etfa
BC004056	234463 BC004056
BC005494	216157 ORF61
BC005598	98221 Ga17
BC005744	72144 Slc37a3
BC005755	70465
BC005788	71994 Cnn3
BC007132	20924 Supt5h
BC007481	140570 Plxnb2
BC008543	84113 PtoV1
BC015273	110157 Raf1
BC016535	68556 Urkl1
BC017138	109168

Figure 54-3

BC017633	70615 D10Bur2e
BC018324	70456
BC018363	170755 Sgk3
BC018368	116733 Vps4a
J02995	11350 Abl1
L31395	13429 Dnm
M81483	19056 Ppp3cb
NM_007471	11820 App
NM_007474	11833 Aqp8
NM_007480	11844 Arf5
NM_007495	11899 Astn1
NM_007568	12223 Btc
NM_007591	12317 Calr
NM_007637	12465 Cct5
NM_007644	12492 Scarb2
NM_007653	12512 Cd63
NM_007657	12527 Cd9
NM_007666	12563 Cdh6
NM_007714	12750 Clk4
NM_007761	12909 Crp
NM_007783	12988 Csk
NM_007788	12995 Csnk2a1
NM_007793	13014 Cstb
NM_007878	13491 Drd4
NM_007924	13716 Eil
NM_007934	13809 Enpep
NM_007939	13842 Epha8
NM_008040	14290 Fpr-rs3
NM_008156	14756 Gpld1
NM_008165	14799 Gria1
NM_008170	14811 Grin2a
NM_008244	15239 Hgs
NM_008338	15980 Ifngr2
NM_008344	16012 Igfbp6
NM_008361	16176 Il1b
NM_008382	16326 Inhbe
NM_008396	16398 Itga2
NM_008580	26408 Map3k5
NM_008602	17344 Mlz1
NM_008692	18046 Nfyc
NM_008696	26921 Map4k4
NM_008702	18099 Nlk
NM_008705	18103 Nme2
NM_008741	18197 Nsg2
NM_008797	18563 Pcx
NM_008845	18718 Pip5k2a
NM_008857	18759 Prkl
NM_008885	18858 Pmp22
NM_008958	19207 Ptch2
NM_009025	19414 Rasa3
NM_009030	19646 Rbbp4
NM_009042	19692 Reg1
NM_009106	20166 Rtkn
NM_009136	20284 Scrg1
NM_009159	20384 Sfrs5
NM_009179	20444 Slat5

Figure 54-4

NM_009197	20502 Slc16a2
NM_009254	20719 Serpinb6a
NM_009270	20775 Sqle
NM_009293	20905 Sts
NM_009409	21974 Top2b
NM_009423	22032 Traf4
NM_009424	22034 Traf6
NM_009440	22127 Tsx
NM_009510	22350 Vil2
NM_009706	11855 Arhgap5
NM_009707	11856 Arhgap6
NM_009717	11922 Neurod6
NM_009773	12236 Bub1b
NM_009796	12339 Capn7
NM_009802	12353 Car6
NM_009805	12633 Cflar
NM_009840	12469 Cct8
NM_009886	12614 Celsr1
NM_010109	13640 Efna5
NM_010133	13798 En1
NM_010198	14166 Fgf11
NM_010218	14221 Fjx1
NM_010347	14797 Aes
NM_010568	16337 Insr
NM_010592	16478 Jund1
NM_010707	16857 Lgals6
NM_010798	17319 Mif
NM_010941	18194 Nsdhl
NM_011049	18555 Pctk1
NM_011074	18647 Pfk1
NM_011116	18807 Pld3
NM_011175	19141 Lgmn
NM_011183	19165 Psen2
NM_011244	19411 Rarg
NM_011251	19654 Rbm6
NM_011316	20211 Saa4
NM_011336	20301 Ccl27
NM_011401	20527 Slc2a3
NM_011421	20597 Smpd1
NM_011487	20849 Stat4
NM_011492	20869 Stk11
NM_011522	20974 Syng3
NM_011651	22116 Stk22s1
NM_011829	23917 Impdh1
NM_011904	24087 Tll2
NM_011906	24100 Tpra40
NM_011930	26373 Clcn7
NM_012017	26919 Zfp346
NM_012043	26968 Islr
NM_013483	12231 Btn1a1
NM_013535	14790 Grcc10
NM_013589	16997 Ltbp2
NM_013614	18263 Odc
NM_013661	20357 Sema5b
NM_013672	20683 Sp1
NM_013680	20964 Syn1

Figure 54-5

NM_013818	14904 Gtpbp1
NM_013884	29873 Cspg5
NM_013908	30839 Fbxw5
NM_015728	11416 Slc33a1
NM_015737	14426 Galnt4
NM_015753	24136 Zfhx1b
NM_015795	50759 Fbxo16
NM_015806	50772 Mapk6
NM_016678	53614 Reck
NM_016788	51789 Tnk2
NM_016843	54138 Sca10
NM_016863	14226 Fkbp1b
NM_016877	53621 Cnot4
NM_016879	53622 Krt2-18
NM_016888	53625 B3gnt1
NM_016894	51801 Ramp1
NM_017395	53970 Rfx5
NM_017478	54160 Copg2
NM_018795	27421 Abcc6
NM_018798	54609 Ubqln2
NM_018821	54607 Socs4
NM_018823	54446 Nfat5
NM_018888	56046
NM_019415	20497 Slc12a3
NM_019473	29845 Olfr155
NM_019718	56350 Arl3
NM_019735	56369 Mmrp19
NM_019768	56397 Morf4l2
NM_019799	56315 Rhcg
NM_019942	56526
NM_020256	56805 Zbtb33
NM_020257	93675 Dcl1
NM_020575	57438 Axot
NM_020594	57432
NM_021286	20370 Sez6
NM_021307	57745 Zfp112
NM_021371	140904 Caln1
NM_021373	58173 AB030188
NM_021414	74340
NM_021457	14362 Fzd1
NM_021489	58992 F12
NM_021493	58996
NM_021509	59012 Moxd1
NM_021539	59043 AA673511
NM_021550	59048
NM_021568	59093 Pcbp3
NM_021921	60597 Mapk8ip2
NM_022321	64099 Parvg
NM_022653	50492 Thop1
NM_023465	67087 Catnbip1
NM_023598	71371 Desrt
NM_023773	75339
NM_023868	20191 Ryr2
NM_023871	56086 Set
NM_024228	68616
NM_025273	13180 Pcbd

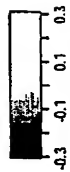
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Figure 54-6

NM_025303	29819 Stau2
NM_025417	66199
NM_025460	66271
NM_025568	
NM_025647	66588
NM_025771	
NM_025963	67097
NM_026154	107732 Mrpl10
NM_026165	67453
NM_026242	67568
NM_026306	67674
NM_026528	68045
NM_026660	68294
NM_026829	107885 Mthfs
NM_026911	69019
NM_027157	69664
NM_028104	72112
NM_028756	74102 Slc35a5
NM_029716	108699 Chn1
NM_031367	15061 H28
NM_031879	
NM_033042	85030 Tnfrsf25
NM_033565	93736 Laf4l
NM_052994	94214 Spock2
NM_053117	93737 Pard6g
NM_054099	117171
NM_080633	11429 Aco2
U20780	217342
U70139	12457 Ccm4l
X58472	16588 Kin
Y12229	22288 Utrn
Y12713	27282 Erv4
Y15910	54004 Diap2

Figure 54-7

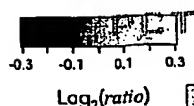
Figure 55 A



	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_015795	50759	Fbxo16		unknown
	NM_011522	20974	Syng3	integral to plasma membrane	unknown
	AF189771	11518	Add1	cytoskeleton;membrane	csk
	NM_012017	26919	Zfp346	nucleolus	apoptosis
	NM_008857	18759	Prkcl	plasma membrane	signaling
	AF156547	54668	Atp11c	integral to membrane	transport
	NM_008396	16398	Igga2	cytoskeleton;extracellular matl	cell adh - ecm
	AK003423	71781	Slc16a14	integral to membrane	transport
	AF229644	54646	DXImx48e	integral to membrane;microvilli	signaling
	NM_021539	59043	AA673511		signaling
	NM_008580	26408	Map3k5	cytoplasm	signaling (MAP K)
	NM_008165	14799	Gria1	extracellular space;integral to	signaling (receptor)
	M81483	19056	Ppp3cb	protein serine-threonine phos pha	signaling

BS
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Figure 55 B



	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_011421	20597	Smpd1	Integral to membrane;lysosome	metabolism
	NM_009159	20384	Sfrs5	spliceosome complex	transcription
	NM_008845	18718	Plp5k2a	cytoplasm	lipid metabolism
	AK012767	109065			unknown
	AK003496	73833			unknown
	NM_013908	30839	Fbxw5	anaphase-promoting complex	protein degradation
	NM_008797	18563	Pcx	mitochondrion	metabolism
	NM_007783	12988	Csk	cytoplasm	signaling
	NM_026154	107732	Mrpl10	mitochondrial large ribosomal su	misc
	NM_025303	29819	Stau2	microtubule associated complex	transport
	NM_008244	15239	Hgs	endosome	transport
	AK019809	78051			unknown
	NM_016788	51789	Tnk2	cytoplasm	signaling
	NM_009025	19414	Rasa3	plasma membrane	signaling (GAP)
	NM_007934	13809	Enpep	Integral to membrane;plasma memb	immune response
	AF071173	15204	Herc2		protein degradation
	BC007481	140570	Pknox2	Integral to plasma membrane	Signaling (receptor)
	NM_011930	26373	Cln7	Integral to plasma membrane	ion channel
	AK004206	67282			unknown
	NM_011829	23917	Impdh1	cytoplasm	metabolism
	NM_010347	14797	Aes	nucleus	transcription
	BC005744	72144	Slc37a3	extracellular space;integral to	transport
	BC003197	22123	Psmc3	26S proteasome;cytosol	protein degradation
	AK012129	74206			unknown
	AK003698	74778		membrane	misc
	AK012842	72686			unknown
	NM_017478	54160	Copg2	Golgi apparatus;membrane;viral c	transport
	BC005494	216157	ORF61		unknown
	NM_019415	20497	Slc12a3	Integral to plasma membrane	transport
	AF343752	77053	Unc84a	cytoplasm;integral to membrane;n	unknown
	AK010429	71956		cytoplasm	unknown
	NM_016879	53622	Krt2-18	Intermediate filament	ctsk
	AK010452	52666	D10Etd610e	plasma membrane	tumor related
	NM_007761	12909	Crcp		signaling (receptor)
	NM_007471	11820	App	Golgi apparatus;coated pit;endop	cell adh
	AK017014	71281			unknown
	NM_011492	20869	Stk11	microtubule cytoskeleton	Signaling
	AK004074	28106	Il25	extracellular space	growth factor
	NM_080633	11429	Aco2	mitochondrion	metabolism
	AK019495	77591	Ddx10		misc
	AK009954	67870		extracellular	unknown
	BC005788	71994	Cnn3	cytoskeleton	ctsk ?
	NM_016863	14226	Fkbp1b		signaling
	AK016202	75304			unknown
	NM_022653	50492	Thop1	mitochondrion	protein degradation
	AK014872	70866	Slco6d1	Integral to membrane	transport
	AK016990	74481		nucleus	transcription
	AK010511	11652	Akt2	Intracellular;protein kinase CK2	cell cycle
	AK007703	27410	Abca3	Integral to plasma membrane	misc
	NM_008692	18046	Nfyc	transcription factor complex	transcription
	NM_031879				unknown
	NM_011906	24100	Tpra40	Integral to membrane	signaling (receptor)
	NM_007666	12563	Cdh6	extracellular space;Integral to	cell adh
	BC008543	84113	Ptov1		tumor related
	NM_008344	16012	Igfbp6	extracellular space	growth factor
	AK019059	59040	Arht1	Integral to membrane	signaling
	AK011747	17237	Mgrn1	extracellular	apoptosis
	AK004688	74126		endoplasmic reticulum;Integral t	tumor related (receptor)
	NM_021371	140904	Caln1		signaling
	AK005386	72008		endosome	transport
	NM_011487	20849	Stat4	cytoplasm;nucleus	transcription
	NM_010218	14221	Fjx1	extracellular space	unknown
	NM_009136	20284	Scrg1	extracellular space	misc

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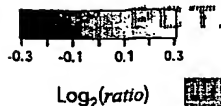


Figure 55 C

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	AF375046	93762	Smarca5	nucleus	misc
	NM_009424	22034	Traf6		protein degradation
	AK008537	67035		cytoplasm	translation
	NM_009510	22350	Vil2	cytoskeleton;microvillus	ctsk
	NM_013589	16997	Ltbp2	extracellular matrix	ecm
	NM_008338	15980	Ilfnr2	extracellular space;integral to	immune response (receptor)
	NM_009805	12633	Cflar		apoptosis
	NM_025647	66588		cytoplasm;extracellular space;nu	unknown
	NM_016894	51801	Ramp1	extracellular space;integral to	signaling
	AK005182	72022	Slc35f2	integral to membrane	transport
	NM_013535	14790	Grcc10		unknown
	AK010831	76773			unknown
	AF334612	170761	Pdzk2	actin cytoskeleton	signaling
	NM_019718	56350	Arl3	Golgi apparatus	signaling
	NM_013818	14904	Gtpbp1	membrane	immune response
	AL078630				unknown
	AK014837	70852			unknown
	AK014772	74592			unknown
	AK014549	74034			unknown
	AK004410	52397	D5Ert689e		unknown
	AK017767	66653	Brl2	transcription factor complex	transcription
	NM_021550	59048		integral to membrane	unknown
	NM_008382	16326	Inhbe	extracellular space	growth factor (secreted)
	NM_026911	69019		integral to endoplasmic reticulu	protein degradation
	NM_009840	12469	Cct8	cytosol	translation
	NM_019799	56315	Rhcg	integral to plasma membrane	transport
	NM_013483	12231	Btn1a1	extracellular space;integral to	immune response (receptor)
	NM_007474	11833	Aqp8	integral to plasma membrane;mito	transport
	NM_009409	21974	Top2b	chromosome;metaphase chromosome;	misc
	NM_011336	20301	Ccl27	extracellular space;nucleus	immune response (secreted)
	AK012812	69953			unknown
	NM_007714	12750	Clk4	cytoplasm;nucleus	signaling
	AK005098	68966			unknown
	AK012624	72621		plasma membrane	signaling
	NM_009717	11922	Neurod6	nucleus	transcription
	AK017215	67759			unknown
	NM_009796	12339	Capn7	nucleus	protein degradation
	NM_011251	19654	Rbm6	spliceosome complex	misc
	BC005598	98221	Ga17	signalosome complex	protein degradation
	BC017138	109168			immune response ?
	NM_013661	20357	Sema5b	extracellular space;integral to	signaling (receptor)
	AK021208	77422			unknown
	AK008333	70257		mitochondrion	unknown
	NM_020575	57438	Axot	ribosome	unknown
	AK005887	69354	Slc38a4	integral to membrane	transport
	AK012944	20639	Snrpb2	snRNP U2;viral nucleocapsid	transcription
	AK006679				unknown
	NM_015737	14426	GaInt4	Golgi apparatus;extracellular sp	misc
	AK015098	73818			unknown
	AK007293	76645	Pkd1l2		unknown
	NM_010198	14166	Fgfl1	extracellular space	growth factor
	AK008979	72383			unknown
	NM_025460	66271		integral to membrane	unknown
	AK010827	76826		extracellular space	unknown
	AK007787	67887		integral to membrane	unknown
	Y15910	54004	Diap2		misc
	AK010079	70285			transcription ?
	AK015888	67171		ribosome	unknown
	AK015454	67876		mitochondrion	transcription
	AK011135	77048		cytoskeleton	transcription
	X58472	16588	Kin		misc
	NM_031367	15061	H28	cytoplasm	immune response
	AK006185	70373			unknown

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Figure 56 A

Log₂(ratio)

ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_008361	16176	Itihb	extracellular	immune response
AK020300	78240	Cst11	extracellular space	ecm
NM_007495	11899	Astn1	Integral to membrane	misc
NM_018821	54607	Socs4		signaling
AK014760	75770			unknown
Y12713	27282	Erv4		virus
AF009011	12005	Axin	cytoplasmic vesicle	signaling
NM_021493	58996		membrane	unknown
NM_011401	20527	Slc2a3	extracellular space;integral to	transport
NM_021414	74340			unknown
NM_023465	67087	Catnblp1	cytoplasm;nucleus	signaling
NM_009886	12614	Celsr1	extracellular space;integral to	cell adh (receptor)
AK016135	75320			signaling
NM_020256	56805	Zbtb33	transcription factor complex	transcription
J02995	11350	Abi1	cytoplasm;nucleus	tumor related
NM_011049	18555	Pctk1	cytoplasm	misc
AK006970	76719			unknown
NM_009423	22032	Traf4	nucleus	apoptosis
AK010747	73692			unknown
AK003581	100764		Integral to membrane	unknown
AK009341	69179			unknown
NM_009179	20444	Slc15	Golgi apparatus;integral to memb	lipid metabolism
NM_008170	14811	Grin2a	extracellular space;integral to	signaling (receptor)
NM_028104	72112		cytoplasm	signaling
BC015273	110157	Raf1	cytosol;plasma membrane	signaling
AB023957	170773	AB023957		unknown
U70139	12457	Ccrn4l		unknown
NM_025771				unknown
NM_026660	68294		Integral to membrane	Transport
NM_009030	19646	Rbbp4	chromatin assembly complex	cell cycle
NM_008702	18099	Nlk	nucleus;protein kinase CK2 compl	signaling
NM_009197	20502	Slc16a2	Integral to plasma membrane	transport
AK014606	77043			unknown
NM_018823	54446	Nfat5	cytoplasm;nucleus	transcription
NM_008602	17344	Miz1	nucleus;septin ring	transcription
AK017734	75712		Integral to membrane	unknown
AK009460	66053	Ppil2	nucleus	translation
NM_015728	11416	Slc33a1	endoplasmic reticulum membrane;i	transport
AK017597	70549	Tln2		ctsk
NM_018795	27421	Abcc6	Integral to plasma membrane	transport
AK007552	56036	Ccnf2		cell cycle
NM_023868	20191	Ryr2	Integral to plasma membrane	ion channel
NM_021921	60597	Mapk8lp2	cytoplasm	signaling (MAPK)
NM_054099	117171			unknown
BC002193	110279	Bcr		unknown
AK017320	67240			unknown
NM_009270	20775	Sqle	extracellular space;integral to	lipid metabolism
AK015598	74910			unknown
U20780	217342			protein degradation
NM_033565	93736	Laf4l	mitochondrion	tumor related
AK014549	74034			unknown
BC004056	234463	BC004056	Integral to membrane	unknown
AF303106	110012	Gtrgeo22	Integral to membrane	misc
BC007132	20924	Supt5h		transcription
NM_021373	58173	AB030188	Integral to membrane	unknown
BC017633	70615	D108ur2e		unknown
AK008991	70137			unknown
NM_011904	24087	Tll2	extracellular space;membrane	protein degradation (secreted)
NM_009293	20905	Srs	extracellular space;integral to	misc
NM_007924	13716	E11	transcription elongation factor	transcription
AK004110	73750	Whrn		unknown
NM_010707	16857	Lgals6	plasma membrane	cell adh
NM_016678	53614	Reck	extracellular space;membrane	protein degradation

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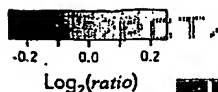
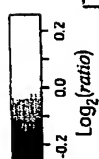


Figure 56 B

ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
NM_011316	20211	Saa4	extracellular space	misc
NM_052994	94214	Spock2	extracellular matrix;extracellul	ecm
NM_007480	11844	Arf5	Golgi apparatus;plasma membrane	transport
AK002767	76509			signaling
NM_024228	68616		extrachromosomal circular DNA;in	unknown
AK017352	71421			unknown
NM_018888	56046		cytoplasmic vesicle	unknown
AK006679				unknown
AK017809	70640			unknown
NM_021307	57745	Zfp112	transcription factor complex	transcription
NM_008885	18858	Pmp22	extracellular space;integral to	cell cycle
NM_019473	29845	Olfir155	integral to plasma membrane	signaling (receptor)
AK006257	69371			unknown
NM_009042	19692	Reg1	extracellular space	growth factor (secreted)
NM_009440	22127	Tsx		unknown
NM_015753	24136	Zfhx1b	transcription factor complex	transcription
NM_026528	68045			unknown
AK010745	73689			unknown
NM_008040	14290	Fpr-rs3	integral to membrane	signaling (receptor)
AK015014	70948	Wdr20	extrachromosomal circular DNA	misc
AK006897	73451		intracellular	transcription ?
AK013012	72184			unknown
AK007483	67169		integral to membrane	signaling
AK013833	57259	Tob2	extracellular	signaling
AK006487	75823			unknown
BC018324	70456			unknown
AK014309	75430			unknown
AK002386	109801	Glo1		unknown
AK018963	78639			unknown
NM_020594	57432		membrane;nucleus	unknown
NM_016888	53825	B3gnt1	Golgi apparatus;integral to memb	translation
AK013995	73078		mitochondrion	misc
AK014536	66696		plasma membrane	traffic
NM_007637	12465	Cct5	chaperonin-containing T-complex	translation
AK007536	66262	Ing5	microtubule	transcription
NM_009802	12353	Car6	extracellular space;integral to	metabolism
NM_011651	22116	Stk22s1		signaling ?
AK014543	70804			signaling (receptor)
AK009134	75572	Acyp2	extrachromosomal circular DNA	metabolism
NM_025273	13180	Pcbd	cytoplasm;nucleus	misc
AK012624	72621		plasma membrane	signaling
NM_025568				unknown
AK004194	68836	Mrpl52		unknown
NM_013614	18263	Odc	mitochondrial inner membrane	misc
NM_022321	64099	Parvg	cytoskeleton	cell adh
NM_012043	26968	Islr	extracellular space	immune response (receptor)
NM_023871	56086	Set	chromatin assembly complex	tumor related
NM_025417	66199		membrane	unknown
NM_017478	54160	Copg2	Golgi apparatus;membrane;viralc	transport
NM_007788	12995	Csnk2a1	plasma membrane;protein kinase C	signaling
AK008793	72269	Cda		misc
NM_019942	56526	sep-06	septin ring	csk
AK018646	75761			apoptosis
AK007894	75597			unknown
NM_023773	75339		chromatin;nucleus	transcription
AF217002	252972	Tpcn1	integral to membrane	transport
NM_017395	53970	Rfx5	intermediate filament	transcription
NM_016843	54138	Sca10		unknown
NM_007657	12527	Cd9	integral to membrane;plasma memb	immune response
BC002094	12913	Creb3	extrachromosomal circular DNA;nu	transcription
AK008083	72041			unknown
NM_010568	16337	Insr	integral to plasma membrane	signaling (receptor)
AK018549	26413	Mapk1	cytoplasm;nucleus	signaling (receptor)
AK018191	67618	Aasdhpt	extrachromosomal circular DNA	unknown

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Figure 57 A



ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
AK006619	73261			unknown
AK002458	68339		myosin	unknown
AB055154	108138	Xrcc4	extracellular;nucleus	cell cycle
NM_010109	13640	EfnA5	extracellular space;membrane	signaling
NM_009717	11922	Neurod6	nucleus	transcription
AF039839				unknown
NM_008156	14756	Gpdl	extracellular space;integral to	cell adh
AK020266	78906		extracellular	unknown
NM_033042	85030	Trnfsf25	extracellular space;integral to	signaling (receptor)
NM_028756	74102	Slc35a5	integral to membrane	trans port
AF137031	83921	Trnm2		unknown
AK021021	16423	Cd47	integral to plasma membrane	cell adh - signaling (receptor)
AK007346	73608		integral to membrane	unknown
NM_021509	59012	Moxd1	cytoplasm;extracellular space;me	metabolism
NM_011074	18647	Plk1	nucleus	trans port
AK003191	68427	Slc39a13	integral to membrane	trans port
NM_010592	16478	Jund1	chromatin;nucleus	cell cycle
NM_013680	20964	Syn1	synapse;synaptic vesicle	trans port
NM_010133	13798	En1	transcription factor complex	transcription
NM_021286	20370	Sez6	extracellular space;integral to	immune response ?
AK013056	76373			Transcription
NM_019768	56397	Morf4l2	chromatin;nucleus	transcription
NM_008958	19207	Ptch2	integral to membrane	signaling (receptor)
L31395	13429	Dnm	membrane coat	ctsk
BC018368	116733	Vps4a		trans port
AK002704	68365	Rab14		signaling
AF411834	20620	Snk	phosphorylase kinase complex	cell cycle
NM_029716	108699	Chn1	cytoplasm	signaling
NM_009254	20719	Serpinb6a		protein degradation
NM_018798	54609	Ubqln2	endoplasmic reticulum membrane	unknown
NM_013672	20683	Sp1	aspartate carboxyltransferase c	transcription
AK009450	71904		integral to membrane	unknown
NM_013884	29873	Cspg5	extracellular space;integral to	traffic
AK014229	73190			unknown
AK005710	67283	Slc25a18	integral to membrane;mitochondr	trans port
BC005755	70465			translation
NM_010798	17319	Mif	extracellular space	immune response
NM_007653	12512	Cd63	integral to membrane;lysosome;pl	signaling
NM_021568	59093	Pcbp3	cytoplasm;nucleus;ribonucleoprot	transcription

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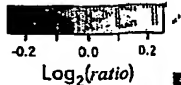


Figure 57 B

	ACCESS	LOCUS	GENE	LOCALIZATION	BIOLOGICAL FUNCTION
	NM_008705	18103	Nme2	microtubule	misc
	NM_026829	107885	Mthfs		metabolism
	AK006407	76420			unknown
	NM_008741	18197	Nsg2	Golgi apparatus;integral to memb	transport
	AB049641	68537	Mirp13	mitochondrial large ribosomal su	translation
	NM_011183	19165	Psen2	Golgi apparatus;endoplasmic reti	signaling
	BC003288	28088	D10Wsu52e	DNA-directed RNA polymerase II-	unknown
	BC003432	110842	Etf	electron transfer flavoprotein c	metabolism
	AK015014	70948	Wdr20	extrachromosomal circular DNA	misc
	NM_025963	67097		nucleus	misc
	NM_019735	56369	Mmrp19	extracellular	protein degradation?
	AK003830	68523			unknown
	NM_021489	58992	F12	extracellular space	misc (secreted)
	NM_026306	67674			unknown
	NM_007793	13014	Cstb	extracellular	protein degradation
	AK017451	71452			unknown
	AK005096	70364		Integral to membrane	transport
	AK015598	74910			unknown
	AK005139	68262	Agpat4	Integral to membrane	lipid metabolism
	NM_010941	18194	Nsdh1	endoplasmic reticulum;Integral t	metabolism
	AK004679	73340	Npbr	chromatin;extracellular space;in	transcription
	BC016535	68556	Urk1	cytoplasm	metabolism
	AK010430	69219	Ddah1		misc
	NM_026242	67568			immune response
	NM_011244	19411	Rarg	extrachromosomal circular DNA;nu	signaling (receptor)
	NM_011116	18807	Plid3	Integral to membrane;membrane fr	metabolism
	NM_008696	26921	Map4k4		signaling
	AK017182	75963			unknown
	AY029613	70359	Gtpbp3	extracellular space;membrane	signaling
	AK015114	73928			unknown
	NM_016877	53621	Cnot4	membrane	transcription
	AK012848	72701			unknown
	AK006305	71848			unknown
	NM_027157	69664			ctsk
	AJ292072	192160	Mln51		unknown
	AK007076	73555			immune response
	AK011557	69903		mitochondrial outer membrane	unknown
	AK006141	75656			unknown
	NM_007939	13842	Epha8	extracellular space;Integral to	signaling (receptor)
	NM_053117	93737	Pard6g	tight junction	cell cycle
	AK011396	234729	D8Wsu151e		unknown
	BC018363	170755	Sgk3	cytoplasmic vesicle	apoptosis
	AK015063	75773			unknown
	NM_007591	12317	Calr	endoplasmic reticulum lumen;extr	cell adhesion
	NM_009106	20166	Rtkn	Intracellular;membrane	signaling
	AK019915	78271			unknown
	NM_011175	19141	Lgmn	extracellular space;lysosome	protein degradation
	AF062567	20687	Sp3	transcription factor complex	transcription
	AL078630				unknown
	AF083812	17120	Mad1l1		unknown
	NM_009706	11855	Arhgap5	membrane	ctsk - signaling (GAP)
	NM_015808	50772	Mapk6	nucleosome	signaling
	NM_007568	12223	Btc	extracellular space;Integral to	cell cycle
	Y12713	27282	Erv4		virus
	NM_023598	71371	Desrt	Intracellular	transcription
	NM_020257	93675	Dcl1	Integral to plasma membrane	cell adh
	NM_021457	14362	Fzd1	Integral to membrane	signaling (receptor)
	AF131865	16561	Klf1b	kinesin complex;mitochondrion	ctsk
	AB003303	20493	Sic10a1	Integral to plasma membrane	transport
	AK008083	72041			unknown
	AK002416	68350		Integral to membrane;lateral pla	transport?
	NM_007878	13491	Drd4	Integral to membrane	signaling (receptor)
	AK009454	268721			unknown

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Fig 58

DIFFERENTIALLY EXPRESSED GENES (SELECTED)

Access	Gene	Description	Class	Region
NM_011025	Oxt	oxytocin	signaling (secreted)	Midbrain
NM_007693	Chga	chromogranin A	signaling (secreted)	Midbrain
NM_008233	Hdgfrp2	hepatoma-derived growth factor, related protein 2	growth factor	Midbrain
AF276974		RIKEN cDNA 9230106L14 gene	unknown	Midbrain
NM_011177	Prss18	protease, serine, 18	protein degradation	Midbrain
NM_008350	Il11	interleukin 11	immune response	Midbrain
NM_008920	Prg2	proteoglycan 2, bone marrow	growth factor (secreted)	Midbrain
NM_008871	Serpine1	serine (or cysteine) proteinase inhibitor, clade E, member 1	protein degradation	Midbrain
AF440737		RIKEN cDNA 1700006F03 gene	misc (secreted) ?	Midbrain
NM_007618	Serpina6	serine (or cysteine) proteinase inhibitor, clade A, member 6	protein degradation	Midbrain
NM_009136	Scrg1	scrapie responsive gene 1	misc	Midbrain
NM_009732	Avp	arginine vasopressin	growth factor (secreted)	Hypothalamus
BC004020	Agtrn	agrin	signaling (secreted)	Hypothalamus
NM_010798	Mif	macrophage migration inhibitory factor	immune response	Hypothalamus
NM_021489	F12	coagulation factor XII (Hageman factor)	misc (secreted)	Hypothalamus
NM_009255	Serpine2	serine (or cysteine) proteinase inhibitor, clade E, member 2	protein degradation (secreted)	Cortex
NM_007728	Coch	coagulation factor C homolog (Limulus polyphemus)	misc	Cortex
AF342737	Bbs2	Bardet-Biedl syndrome 2 homolog (human)	misc (secreted) ?	Cortex
NM_013754	Ins16	insulin-like 6	growth factor	Cortex

Figure 59 (page 173)

DRUG TARGETING CANDIDATES

Access	Gene	Description	Class	Region
AK009282		RIKEN cDNA 2310010M24 gene	signaling (receptor)	Midbrain
NM_007377	Aatk	apoptosis-associated tyrosine kinase	apoptosis	Midbrain
AK017578	Nrxn1	neurexin 1	cell adh	Midbrain
D50872	Piafr	platelet-activating factor receptor	signaling (receptor)	Midbrain
NM_009320	Slc6a6	solute carrier family 6 (neurotransmitter transporter, taurine), member 6	transport	Midbrain
NM_019571	Tm4sf9	transmembrane 4 superfamily member 9	cell adh	Midbrain
AK006211	Samd8	sterile alpha motif domain containing 8	signaling	Midbrain
U70033	Slc8a1	solute carrier family 8 (sodium-calcium exchanger), member 1	transport	Midbrain
NM_011990	Slc7a11	solute carrier family 7 (cationic amino acid transporter, y+ system), member 11	transport	Midbrain
NM_010509	Ifnar2	interferon (alpha and beta) receptor 2	signaling (receptor)	Midbrain
AK013727	Gabra4	gamma-aminobutyric acid (GABA-A) receptor, subunit alpha 4	signaling	Midbrain
NM_019587	Pixnb3	plexin B3	signaling (receptor)	Midbrain
AF140708	Tex10c	t-complex protein 10c	signaling (receptor) ?	Midbrain
NM_008076	Gabbr2	gamma-aminobutyric acid (GABA-C) receptor, subunit rho 2	signaling (receptor)	Midbrain
NM_021530	Slc4a8	solute carrier family 4 (anion exchanger), member 8	transport	Midbrain
BC005568		RIKEN cDNA 2310056K19 gene	unknown	Midbrain
NM_009848	Entpd1	ectonucleoside triphosphate diphosphohydrolase 1	signaling (receptor)	Midbrain
AK003571	Ppfia4	protein tyrosine phosphatase, receptor type, f polypeptide (PTPRF), interacting protein (liprin), alpha 4	signaling (receptor) ?	Midbrain
NM_013596	Mc5r	melanocortin 5 receptor	signaling	Midbrain
AF282304	MOR224-12	olfactory receptor MOR224-12	signaling (receptor)	Midbrain
NM_019959	C1qtnf1	C1q and tumor necrosis factor related protein 1	signaling (receptor) ?	Midbrain
AB039933	Dp111	deleted in polyposis 1-like 1	transport	Midbrain
NM_007474	Aqp8	aquaporin 8	transport	Midbrain
NM_009846	Cd24a	CD24a antigen	immune response	Midbrain
D83203	Ptpnj	protein tyrosine phosphatase, receptor type, J	signaling	Midbrain
NM_021406	Trem1	triggering receptor expressed on myeloid cells 1	signaling (receptor)	Midbrain
BC013502	Tnrc6	transmembrane channel-like gene family 6	transport	Midbrain
NM_018772	Bri3	brain protein I3	transport	Hypothalamus
NM_009539	Zap70	zeta-chain (TCR) associated protein kinase	immune response (receptor)	Hypothalamus

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NM_007581	Cacnb3	calcium channel, voltage-dependent, beta 3 subunit	ion channel	Hypothalamus
NM_008072	Gabrd	gamma-aminobutyric acid (GABA-A) receptor, subunit delta	signaling (receptor)	Hypothalamus
NM_008138	Gnai2	guanine nucleotide binding protein, alpha inhibiting 2	signaling (receptor)	Hypothalamus
NM_011256	Rdgb2	retinal degeneration B2 homolog (Drosophila)	transport	Hypothalamus
NM_010254	Galr2	galanin receptor 2	signaling (receptor)	Hypothalamus
NM_008226	Hcn2	hyperpolarization-activated, cyclic nucleotide-gated K+ 2	ion channel	Hypothalamus
BC002298	Ptpn1	protein tyrosine phosphatase, receptor type Z, polypeptide 1	signaling (receptor)	Hypothalamus
NM_008990	Pvrl2	poliovirus receptor-related 2	cell adh	Hypothalamus
X17647	Ntrk2	neurotrophic tyrosine kinase, receptor, type 2	signaling (receptor)	Hypothalamus
NM_021332	Gip1r	glucagon-like peptide 1 receptor	signaling (receptor)	Hypothalamus
NM_011334	Clcn4-2	chloride channel 4-2	ion channel	Hypothalamus
NM_019701	Clcnk1l	chloride channel K1-like	ion channel	Hypothalamus
NM_010609	Kcnk7	potassium channel, subfamily K, member 7	ion channel	Hypothalamus
NM_022992	Arl6ip5	ADP-ribosylation factor-like 6 interacting protein 5	transport	Hypothalamus
BC003247	Mclc	Mid-1-related chloride channel 1	transport	Hypothalamus
NM_011126	Plunc	palate, lung, and nasal epithelium carcinoma associated	tumor related	Hypothalamus
AF201662	Mcf4r	melanocortin 4 receptor	signaling (receptor)	Hypothalamus
NM_011012	Oprl	opioid receptor-like	signaling (receptor)	Hypothalamus
NM_018733	Scn1a	sodium channel, voltage-gated, type I, alpha polypeptide	ion channel	Hypothalamus
AK012847		RIKEN cDNA 2810031L11 gene	unknown	Cortex
AK004559	Cpne8	copine VIII	transport	Cortex
NM_008358	Il15ra	interleukin 15 receptor, alpha chain	immune response (receptor)	Cortex
NM_009130	Scg3	secretogranin III	misc	Cortex
NM_026162	Plxdc2	plexin domain containing 2	signaling	Cortex
NM_009472	Unc5c	unc-5 homolog C (C. elegans)	signaling (receptor)	Cortex
AF303106	Gtgeo22	gene trap ROSA b-geo 22	misc	Cortex
NM_023805	Slc38a3	solute carrier family 38, member 3	transport	Cortex
AK009282		RIKEN cDNA 2310010M24 gene	signaling (receptor)	Cortex
NM_008761	Fxyd5	FXVD domain-containing ion transport regulator 5	transport	Cortex
NM_010934	Npy1r	neuropeptide Y receptor Y1	signaling	Cortex
NM_019691	Gria4	glutamate receptor, ionotropic, AMPA4 (alpha 4)	signaling (receptor)	Cortex
NM_008115	Gfra2	glial cell line derived neurotrophic factor family receptor alpha 2	signaling (receptor)	Cortex
NM_011522	Syng3	synaptogynin 3	unknown	Cortex
NM_019659	Kcnj1	potassium inwardly-rectifying channel, subfamily J, member 1	ion channel	Cortex
AK004472		RIKEN cDNA 1190003K14 gene	signaling (receptor)	Cortex
NM_019836		RIKEN cDNA 2610024G14 gene	unknown	Cortex
NM_011012	Oprl	opioid receptor-like	signaling (receptor)	Cortex

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NM_019537	Dscr2	Down syndrome critical region homolog 2 (human)	cell cycle	Cortex
NM_019631		RIKEN cDNA C630002M10 gene	tumor related (receptor)	Cortex
U70033	Slc8a1	solute carrier family 8 (sodium-calcium exchanger), member 1	transport	Cortex
NM_016719	Grb14	growth factor receptor bound protein 14	signaling (receptor)	Cortex
AK013276		RIKEN cDNA 1700017I11 gene	signaling (receptor)	Cortex
AF059175	ErbB3	v-erb-b2 erythroblastic leukemia viral oncogene homolog 3 (avian)	signaling (receptor)	Cortex
NM_011643	Trpc1	transient receptor potential cation channel, subfamily C, member 1	signaling (receptor)	Cortex
NM_007377	Aak	apoptosis-associated tyrosine kinase	apoptosis	Cortex
D50060	Pace4	paired basic amino acid cleaving system 4	signaling (receptor)	Cortex
AK021021	Cd47	CD47 antigen (Rh-related antigen, integrin-associated signal transducer)	cell adh - signaling (receptor)	Cortex

Figure 60

DIFFERENTIALLY EXPRESSED GENES (SELECTED)

Access	Gene	Description	Class	Region
NM_007793	Cstb	cystatin B	protein degradation	Midbrain
NM_021489	F12	coagulation factor XII (Hageman factor)	misc (secreted)	Midbrain
NM_019735	Mmp19	monocyte macrophage 19	protein degradation ?	Midbrain
NM_010798	Mif	macrophage migration inhibitory factor	immune response	Midbrain
NM_009042	Reg1	regenerating islet-derived 1	growth factor (secreted)	Hypothalamus
NM_011904	Tll2	tolloid-like 2	protein degradation (secreted)	Hypothalamus
AK020300	Cst11	cystatin 11	ecm	Hypothalamus
NM_008361	Il1b	interleukin 1 beta	immune response	Hypothalamus
NM_010198	Fgf11	fibroblast growth factor 11	growth factor	Cortex
NM_011336	Ccl27	chemokine (C-C motif) ligand 27	immune response (secreted)	Cortex
NM_008382	Inhbe	inhibin beta E	growth factor (secreted)	Cortex
NM_009136	Scrg1	scrapie responsive gene 1	misc	Cortex
AK011747	Mgm1	mahogunin, ring finger 1	apoptosis	Cortex
NM_008344	Igfbp6	insulin-like growth factor binding protein 6	growth factor	Cortex
AK004074	Il25	interleukin 25	growth factor	Cortex

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DRUG TARGETING CANDIDATES

Access	Gene	Description	Class	Region
NM_007878	Drd4	dopamine receptor 4	signaling (receptor)	Midbrain
AK002416		RIKEN cDNA 061009K11 gene	transport ?	Midbrain
AB003303	Slc10a1	solute carrier family 10 (sodium-bile acid cotransporter family), member 1	transport	Midbrain
NM_021457	Fzd1	frizzled homolog 1 (Drosophila)	signaling (receptor)	Midbrain
NM_020257	Dcl1	C-type lectin 1	cell adh	Midbrain
NM_007568	Bic	betacellulin, epidermal growth factor family member	cell cycle	Midbrain
NM_007939	Epha8	Eph receptor A8	signaling (receptor)	Midbrain
AK006305		RIKEN cDNA 1700024J04 gene	unknown	Midbrain
NM_011244	Rarg	retinoic acid receptor, gamma	signaling (receptor)	Midbrain
AK009450		RIKEN cDNA 2310021M12 gene	unknown	Midbrain
NM_008958	Ptch2	patched homolog 2	signaling (receptor)	Midbrain
NM_021286	Sez6	seizure related gene 6	immune response ?	Midbrain
AK021021	Cd47	CD47 antigen (Rh-related antigen, integrin-associated signal transducer)	cell adh - signaling (receptor)	Midbrain
NM_028756	Slc35a5	solute carrier family 35, member A5	transport	Midbrain
NM_033042	Tnfrsf25	tumor necrosis factor receptor superfamily, member 25	signaling (receptor)	Midbrain
NM_008156	Gpld1	glycosylphosphatidylinositol specific phospholipase D1	cell adh	Midbrain
AK018549	Mapk1	mitogen activated protein kinase 1	signaling (receptor)	Hypothalamus
NM_010568	Insr	insulin receptor	signaling (receptor)	Hypothalamus
NM_007657	Cd9	CD9 antigen	Immune response	Hypothalamus
AF217002	Tpcn1	two pore channel 1	transport	Hypothalamus
NM_012043	Islr	immunoglobulin superfamily containing leucine-rich repeat	immune response (receptor)	Hypothalamus
AK014543		RIKEN cDNA 4631434O19 gene	signaling (receptor)	Hypothalamus
NM_008040	Fpr-rs3	formyl peptide receptor, related sequence 3	signaling (receptor)	Hypothalamus
NM_019473	Olf155	olfactory receptor 155	signaling (receptor)	Hypothalamus
NM_010707	Lgals6	lectin, galactose binding, soluble 6	cell adh	Hypothalamus
NM_021373	AB030188	hypothetical protein, clone 1-53	unknown	Hypothalamus
NM_023868	Ryr2	ryanodine receptor 2, cardiac	ion channel	Hypothalamus
NM_018795	Abcc6	ATP-binding cassette, sub-family C (CFTR-MRP), member 6	transport	Hypothalamus

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AK017734	Slc16a2	RIKEN cDNA 5730496E24 gene	unknown	Hypothalamus
NM_009197		solute carrier family 16 (monocarboxylic acid transporters), member 2	transport	Hypothalamus
NM_026660	Grin2a	RIKEN cDNA 0610090O03 gene	Transport	Hypothalamus
NM_008170		glutamate receptor, ionotropic, NMDA2A (epsilon 1)	signaling (receptor)	Hypothalamus
AK003581		RIKEN cDNA 1110008J03 gene	unknown	Hypothalamus
NM_009886	Celsr1	cadherin EGF LAG seven-pass G-type receptor 1	cell adh (receptor)	Hypothalamus
NM_007495	Asm1	astrotactin 1	misc	Hypothalamus
AK005887	Slc38a4	solute carrier family 38, member 4	transport	Cortex
NM_013661	Sema5b	sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5B	signaling (receptor)	Cortex
NM_007474	Aqp8	aquaporin 8	transport	Cortex
NM_013483	Bn1a1	butyrophilin, subfamily 1, member A1	immune response (receptor)	Cortex
NM_019799	Rhcg	Rhesus blood group-associated C glycoprotein	transport	Cortex
NM_021550		RIKEN cDNA 1500002I11 gene	unknown	Cortex
AK005182	Slc35f2	solute carrier family 35, member F2	transport	Cortex
NM_008338	Ifngr2	interferon gamma receptor 2	immune response (receptor)	Cortex
AK004688		RIKEN cDNA 1200010C09 gene	tumor related (receptor)	Cortex
NM_011906	Tpra40	transmembrane domain protein regulated in adipocytes	signaling (receptor)	Cortex
AK014872	Slco6d1	solute carrier organic anion transporter family, member 6d1	transport	Cortex
NM_007761	Crp	calcitonin gene-related peptide-receptor component protein	signaling (receptor)	Cortex
NM_019415	Slc12a3	solute carrier family 12, member 3	transport	Cortex
NM_011930	Clcn7	chloride channel 7	ion channel	Cortex
BC007481	Plxnb2	plexin B2	Signaling (receptor)	Cortex
NM_007934	Enpep	glutamyl aminopeptidase	immune response	Cortex
NM_008165	Gria1	glutamate receptor, ionotropic, AMPA1 (alpha 1)	signaling (receptor)	Cortex
AK003423	Slc16a14	solute carrier family 16 (monocarboxylic acid transporters), member 14	transport	Cortex
AF156547	Atp11c	ATPase, class VI, type 11C	transport	Cortex
NM_011522	Syng3	synaptogyrin 3	unknown	Cortex